MAY 5 1928

THE AMERICAN
School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION



May, 1928

THE BRUCE PUBLISHING COMPANY

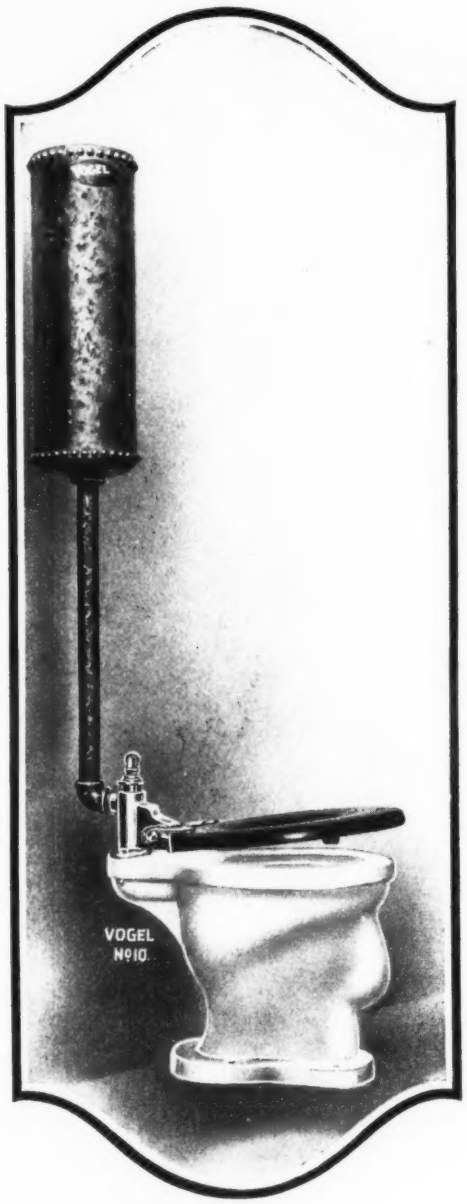
NEW YORK MILWAUKEE, WIS. CHICAGO

New **VOGEL** *Number TEN*

PATENTED

Automatic School Water Closet

DESIGNED TO WITHSTAND THE HARDEST USAGE



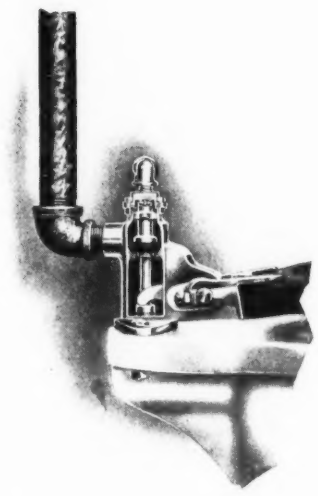
When the closet seat is depressed the supply valve packing is drawn down from the top supply valve seat, and the flush valve packing is brought into contact with the flush valve seat, allowing water to enter the tank through the flush pipe. Upon the pressure of water and air in tank becoming equalized with the service pressure, no more water enters the fixture. This water is held in readiness for the release of the seat.

When the seat is released the rod which carries both supply and flush valve packings is forced upward closing the water supply at the inverted supply valve seat in the swivel at the top. The flush valve, by the same movement, is opened and a strong flush of water from tank to bowl ensues.

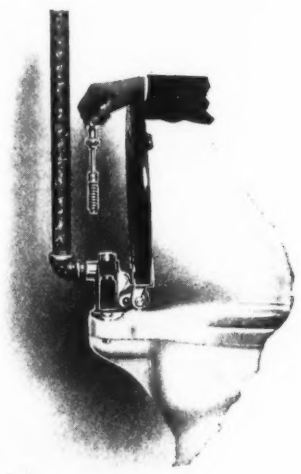
The tank is practically indestructible as is also the flush pipe. The valve is constructed heavily throughout of good quality material and attached to the bowl by a very strong connection. The closet seat is of a durable make and the bowl is of vitreous china.

Economical in the use of water.

The simplest and most durable automatic water closet.



A sample valve was tested 150,000 operations without any appreciable wear.



Sold by Wholesalers of Plumbing Supplies Everywhere

JOSEPH A. VOGEL CO.

Wilmington, Delaware **St. Louis, Missouri**

NATURAL SLATE BLACKBOARDS

FOR "BLACKBOARD-PERFECTION"

From every standpoint you can think of, there is no material like Natural Slate for Blackboards!

Everlasting . . . . a hundred years means nothing to Natural Slate!

Durable . . . . Natural Slate Blackboards are always like new!

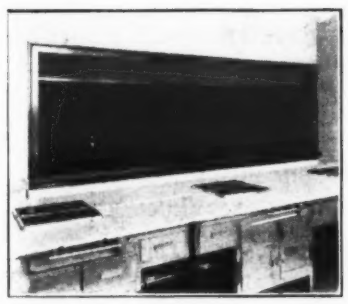
Sanitary . . . . easy to clean at all times!

Economical . . . . no depreciation, no up-keep cost whatsoever!

Even the makers of substitute board unintentionally pay tribute to Natural Slate and its enduring features when they say "this is as good as Slate" or "that is equal to Slate."

Natural Slate is the standard. Attempts are often made to equal it, but never successfully—for who can equal the Natural product with an imitation product?

Use Natural Slate Blackboards!



SANITARY . . . FIRE-PROOF . . . PERMANENT . . . ECONOMICAL . . . EASY-TO-WRITE-ON . . . . . EASY-TO-READ-FROM.

NATURAL SLATE BLACKBOARD CO.

508 ROBINSON AVE., PEN ARGYL, PA.

BRANCH OFFICES IN PRINCIPAL CITIES



EXIT

ROOF REPAIR EXPENSE FOR 20 YEARS

How often does the owner of a Barrett Specification Roof think about that roof?

He forgets it. His roof is so trouble-free that he never has to give it a thought.

Once in a while—hearing that some other man's buildings are in the throes of roof repairs or replacements — he remembers that his Barrett Roof has been up there for years without costing him one cent.

When a Barrett Specification Roof is laid, a Surety Bond is issued guaranteeing the building owner against repair expense for the next 20 years.*

That definitely guaranteed period jumps us up to the year 1948. After 1948, what?

That question is answered by scores of old roofs of Barrett Pitch and Felt laid in the 70's, 80's and 90's. (You remember the pictures of a number of these old-timers featured in our advertising during the past year.) Not once, but again and again, we were able to point to veteran Barrett Roofs—30, 40, and even 50 years old—that had never cost their owners one cent for repairs or maintenance.

The architects, engineers and contractors of America are thoroughly familiar with these notable records. They know that no other type of built-up roof offers such irrefutable proofs of durability. That's why a majority of our finest modern buildings are covered with the Barrett Specification Roof.

For complete information about these trouble-free roofs, dictate a brief note to us.

*The Barrett Company also offers a Specification Type "A" Roof which is bonded for 10 years. This type of roof is adaptable to a certain class of buildings. The same high-grade materials are used, the only difference being in the quantities.

A Valuable Service to School Boards

Why not have a Barrett Service Man inspect and give an unprejudiced report on the roofs of your schools? This he does without charge or obligation. His report on conditions and upkeep methods often saves expensive repairs. This free inspection service applies to schools located east of the Rockies and having a roof area of 5,000 square feet or more.

Address Inspection Service Department.

THE BARRETT COMPANY
40 Rector Street, New York City

IN CANADA:
The Barrett Company, Ltd.
5551 St. Hubert Street, Montreal, Quebec, Canada

Barrett Specification Roofs

KEWANEE STEEL BOILERS

Lower Heating Costs

Kewanee Boilers are built with plenty of space, above the water line, for the steam. This space has to be *high* so that the steam in the supply pipes will be dry. Also the space must be wide so that there will be *enough steam in reserve* to cushion all fluctuations of the heating load.

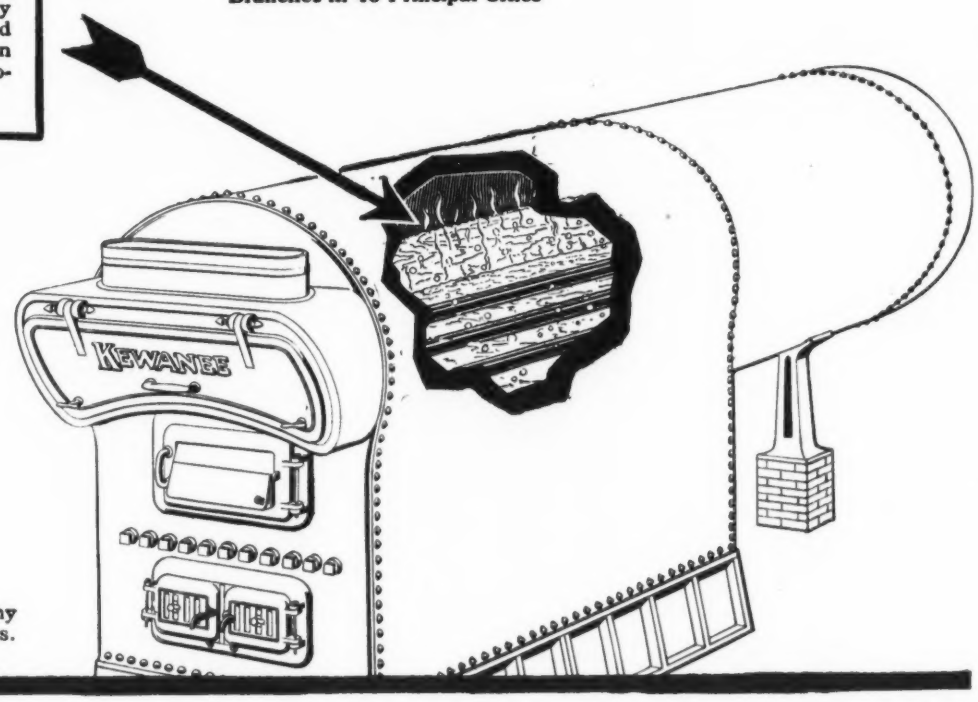
This is one of the many Kewanee features which definitely assure the greatest amount of heat for the building with the least fuel, and *guarantee lower heating costs.*

KEWANEE BOILER CORPORATION

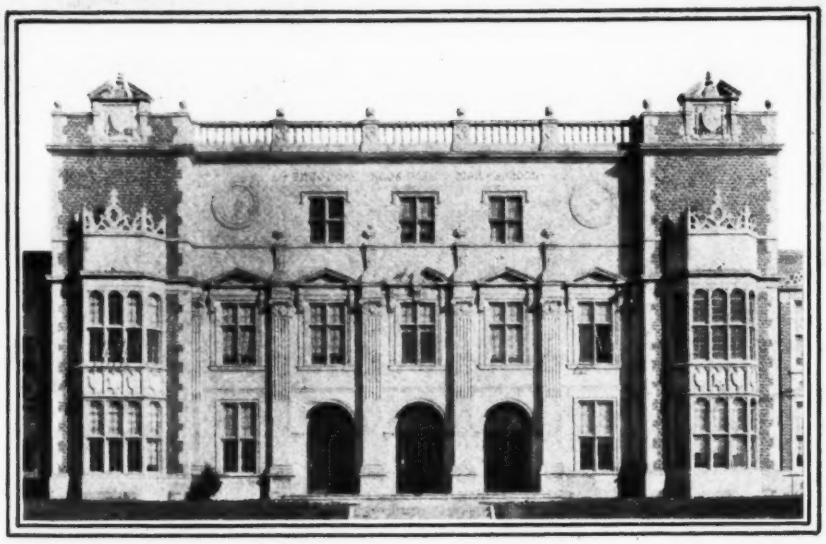
Kewanee, Illinois

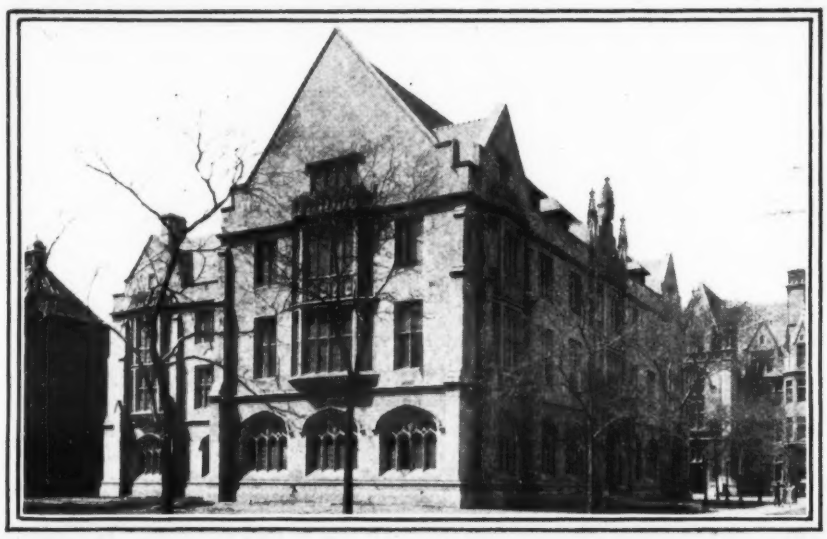
Branches in 40 Principal Cities

Right Here: there's high and wide space full of dry steam all ready to respond instantly to every sudden demand without commotion inside the boiler.



One of a Series—explaining just why Kewanee Boilers Cut Fuel Costs.





Upper Picture:
THEODORE ROOSEVELT HIGH SCHOOL,
DES MOINES, IOWA.
Equipped With Johnson Temperature Control.
Proudfoot, Bird & Rawson, Architects.

Lower Picture:
THEOLOGY BUILDING,
UNIVERSITY OF CHICAGO.
Equipped With Johnson Control.
Coolidge & Hodgdon, Architects.

The Johnson System Of Temperature Control in school buildings saves 25 to 40 per cent in fuel per year.

The Johnson System thus pays for itself in a very short time; and continues its 25 to 40 per cent fuel economy and annual investment return each year after.

Johnson Temperature Control prevents overheating and heat waste and excess fuel consumption; automatically maintaining each room at the stipulated, correct, constant temperature — regardless of weather conditions and changes out-doors.

Its success in hundreds of schools in all parts of United States and Canada endorses its certainty of service and value.

Heat is wasted, greatly more fuel than necessary is consumed, exhorbitant costs exist — in schools not equipped with Johnson Temperature Control.

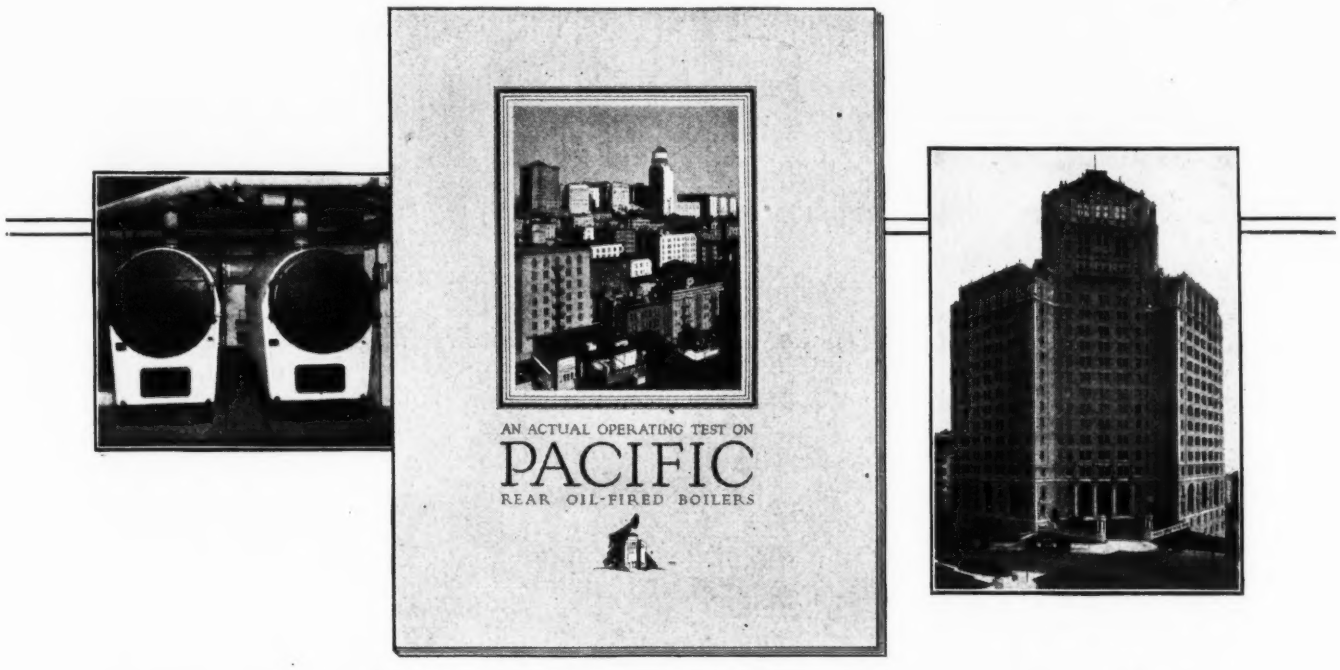
Paying for itself as it does therefore makes Johnson Temperature Control an item that costs absolutely nothing, and instead of being an ex-expense it saves and prevents huge expense.

Consider Johnson Temperature Control that way, as regards its installation in your schools.

JOHNSON SERVICE
COMPANY . . . MILWAUKEE

ALBANY	LOS ANGELES
ATLANTA	MINNEAPOLIS
BALTIMORE	NEW YORK
BOSTON	PHILADELPHIA
BUFFALO	PITTSBURGH
CHICAGO	PORTLAND
CINCINNATI	ST. LOUIS
CLEVELAND	SALT LAKE CITY
DALLAS	SAN FRANCISCO
DENVER	SEATTLE
DES MOINES	CALGARY, ALTA.
DETROIT	MONTREAL, QUE
GREENSBORO, N. C.	WINNIPEG, MAN.
INDIANAPOLIS	TORONTO, ONT.
KANSAS CITY	VANCOUVER, B. C.

AUTOMATIC TEMPERATURE
REGULATION SINCE 1885.



Send for This Remarkable Operating Test on Boilers

Compare Your Heating Results with These New Standards

One actual operating test is worth a great number of factory or laboratory tests — and this booklet is devoted entirely to a notable example. Every word in it is written by the owners and their consulting engineers, who have supplied illustrations, tables, and a complete description of the methods employed.

This test is exceptionally valuable to you because it was not conducted from the viewpoint of equipment manufacturers. It represents actual operating conditions and its conclusions are applicable to a wide range of heating problems.

The boiler tested was one of two Pacific Rear Oil-Fired Boilers in the Mark Hopkins Hotel at San Francisco. The plant was installed and in operation five months before the test began. The results, amazing as they are, cannot be attributed to any unusual factor. They are absolutely credible.

The performance of this boiler as measured by this well-known firm of consulting engineers, is a complete vindication of Pacific principles of construction. It establishes heating standards which you should know about, whether or not you contemplate construction work at this time.

Write now for a copy — no obligation.

Facts Completely Presented in This Booklet

Efficiency — 83.05% at normal operating rating, and 76.91% *when forced to 152.4% of rating.*

Capacity — 152.4% of rating, with high efficiency and no priming.

Dry Steam — only 0.93% water in separator box at the peak of the test — a remarkable record.

Low Flue Gas Temperature — only 603° F. at over 150% of rating, showing complete heat transfer due to Pacific four-time fire travel.

STEEL HEATING BOILERS
PACIFIC
WAUKEGAN, ILL. BRISTOL, PA.
TRADE MARK REG. U.S. PAT. OFF.

PACIFIC

STEEL HEATING BOILERS

FACTORIES: WAUKEGAN, ILL., BRISTOL, PA.

Von Duprin

Self-Releasing Fire Exit Latches

Sweets, Pages B2036-2039

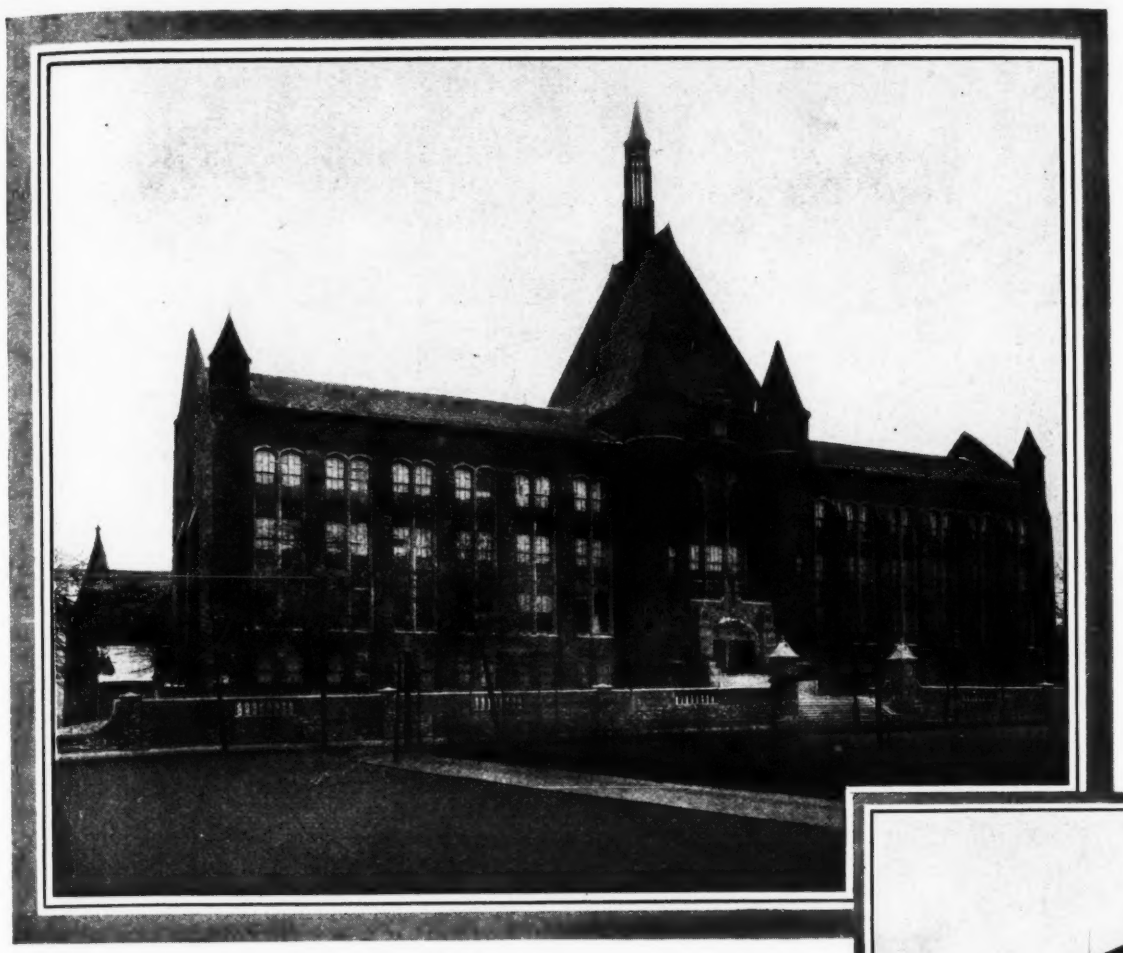
AIA 27c5

The cost of construction which protects occupants of a building against fire is very large. The cost of protection against panic fatalities is very small. Yet either one may be the means of saving many lives.

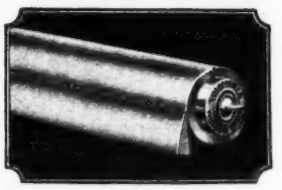
AIA

VONNEGUT
HARDWARE CO.
Indianapolis, Ind.

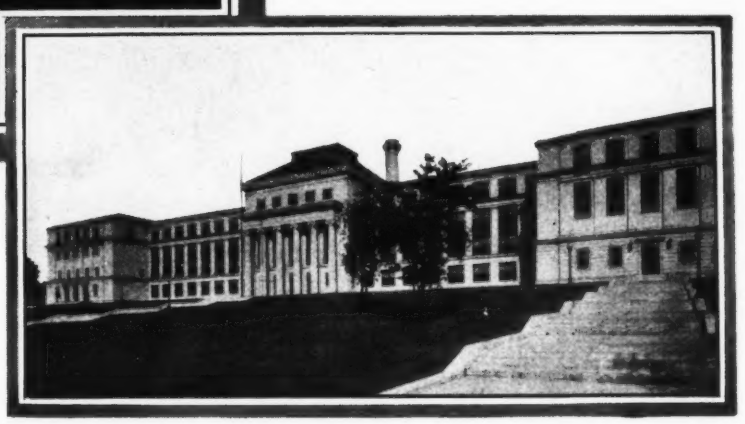




CATHEDRAL HIGH SCHOOL
Pittsburgh, Pa.
Architects: Link, Weber & Bowers
Equipped with *Columbia* Window Shades & Rollers



WHEN you decide to mount your window shades on *Columbia* Rollers, you have saved yourself the trouble of thinking about shade rollers again for a long time. For *Columbia* Rollers have the happy habit of just keeping on working.



TAYLOR ALDERDICE HIGH SCHOOL, Pittsburgh, Pa.
Architect: Robert Maurice Trimble
Equipped with *Columbia* Window Shades & Rollers

When and why *we recommend* Damasko *Hevi-Duty* Window Shades

How often will the window shades be raised and lowered?

Half a dozen times during the course of the year? All right. In that case, practically any ordinary make of window shade will give satisfactory service.

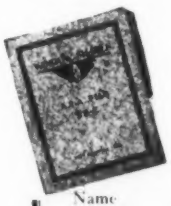
Half a dozen times per day? That's the daily grind of the average school window shade. It is constantly being adjusted—snapped up and jerked down—by guests who never think of being careful.

For schools, therefore, we recommend our special Damasko Hevi-Duty Window Shade. This shade lives up to its middle name—it's made expressly for heavy duty, hard wear and rough treatment.

Its fabric is a strong, closely-woven, unfilled cambric—guaranteed not to crack, tear, show pinholes or stretch out of shape. This window shade is manufactured in a wide variety of beautiful colors.

At the present time, Damasko Hevi-Duty Window Shades are doing heavy duty in scores of America's finest schools—*heavy* duty that means *light* repair and replacement bills.

The *Columbia* Mills, Inc., 225 FIFTH AVENUE, NEW YORK
Baltimore Boston Chicago Cincinnati Cleveland Dallas Detroit Fresno Kansas City Los Angeles Minneapolis New Orleans Philadelphia Pittsburgh Portland (Ore.) St. Louis Salt Lake City San Francisco Seattle



***Send for your Copy of* "Window Shades"**

This interesting book tells all about window shades, window shade rollers and roller brackets, approved methods of hanging window shades and suggests the most suitable type of shade for each kind of building. It also contains the useful "Standard Specification for Window Shades." For your copy mail the coupon to *Columbia* Mills, Inc., 225 Fifth Ave., New York City.

Name .....
Street .....
City ..... S 5-28

Columbia GUARANTEED WINDOW SHADES *and* ROLLERS



HUGHES HIGH SCHOOL, CINCINNATI, OHIO.
J. Walter Stevens, *Architect.*

When You Improve Your School Buildings—

More Than 10,000

Schools
Churches
Hotels
Office Buildings
Hospitals
Banks, etc.,
are
Spencer Cleaned.

Let us send you our list of over 1500 schools that use the Spencer System.

It will pay you to consider the installation of one of the most important sanitary improvements of the last decade—and one which will reduce operating expenses as well.

The Spencer Central Cleaning System

insures better sanitary conditions for the life of the building—for it draws out all the dirt and dust and leaves the air in the room fresh and clean.

Dusting is seldom necessary and all interior decorations last longer in the school that is Spencer cleaned.

Special Spencer tools clean everything—all kinds of floors—walls, blackboards—and even the basement and boiler.

The time required is reduced to a minimum and the equipment will soon pay for itself in labor alone.

The Spencer System can be installed in existing schools during the summer at a very moderate cost. The placing of the exhauster in the basement is very simple. The piping can be arranged easily to go with other risers, and still give convenient outlets in every hall and room.

Why not ask our nearest representative how much the Spencer Central Cleaning System would cost and what it would do for your school?

THE SPENCER TURBINE CO.

492 NEW PARK AVE.,
HARTFORD, CONN.

CENTRAL CLEANING SYSTEMS

REPRESENTATIVES IN 50 CITIES

2527

Our Contribution
to the art of Heating & Ventilation



FIVE YEARS AGO when the Herman Nelson light weight, compact, indestructible radiator was placed on the market, it was immediately accepted as the greatest advance in the art of Heating and Ventilation in a generation. It has made possible heating and ventilation dependability and performance hitherto unattainable.

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their unequaled performance.

HEATING · VENTILATING · COOLING · DRYING · CONDENSING

UNIVENT

for the ventilation of schools, hospitals, offices and other buildings presenting an acute ventilating problem.

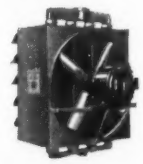


HERMAN NELSON *Invisible* **RADIATOR**



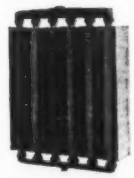
. . . supersedes all previous radiators, radiator cabinets or enclosures. Occupies no room space and makes possible any desired decorative scheme or furniture arrangement. Indestructible in service.

THE HERMAN NELSON **hiJet** UNIT HEATER



It operates at steam pressures from 1 to 150 lbs., and offers the better and more economical way of diffusing heat in Factories, Railroad Shops, Roundhouses, Mills, Warehouses, Garages, Gymnasiums and Industrial Buildings.

Herman Nelson Radiator Sections
for Blast Heating and Cooling



Indestructible, operating at any steam pressure from 1 to 150 lbs., non-corrosive and leak-proof.

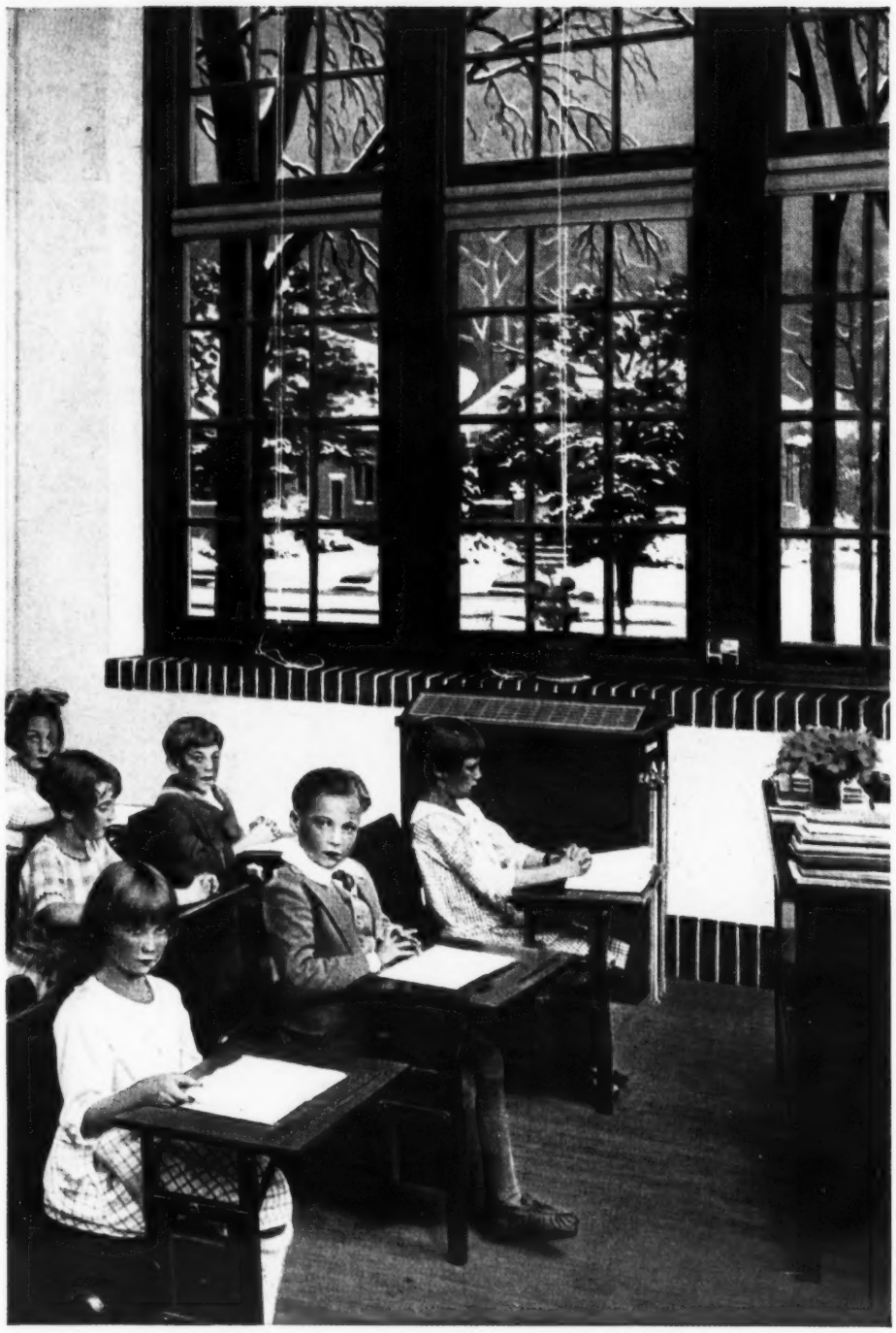
May be arranged in banks to solve any special problem of heating or cooling.

THE HERMAN NELSON CORPORATION · *Moline, Illinois*

Builders of Successful Heating and Ventilating Equipment for over 20 Years

Sales and Service

BELFAST, ME.	UTICA	SCRANTON	SAGINAW	CINCINNATI	DES MOINES	ST. LOUIS	DALLAS	SALT LAKE CITY	SAN FRANCISCO
BOSTON	BUFFALO	PITTSBURGH	DETROIT	TOLEDO	MILWAUKEE	BIRMINGHAM	EMPORIA	SPOKANE	VANCOUVER
NEW HAVEN	PHILADELPHIA	CHARLOTTE, N. C.	CLEVELAND	INDIANAPOLIS	GREEN BAY	ATLANTA	KANSAS CITY	PORTLAND	TORONTO
NEW YORK CITY	WASHINGTON, D. C.	GRAND RAPIDS	COLUMBUS	CHICAGO	MINNEAPOLIS	MEMPHIS	DENVER	SEATTLE	WINNIPEG, MAN.



Univent *and* Glass *make the difference*

Here is VENTILATION *that cannot be duplicated*

SUCCESSFUL results of the Univent have brought national recognition to the basic idea of unit ventilation. With success has come imitation; but—imitation is not duplication.

This fact is becoming more and more known: the results of Univent Ventilation *cannot* be duplicated by any other unit ventilator. The Univent's important features are exclusive to the Univent.

The Univent is a complete individual ventilating machine. Draws air directly from out of doors. Cleans it. Warms it to a comfortable temperature. Distributes it gently to every corner of the room—without draft. Simpler than opening windows and there is no question as to results—

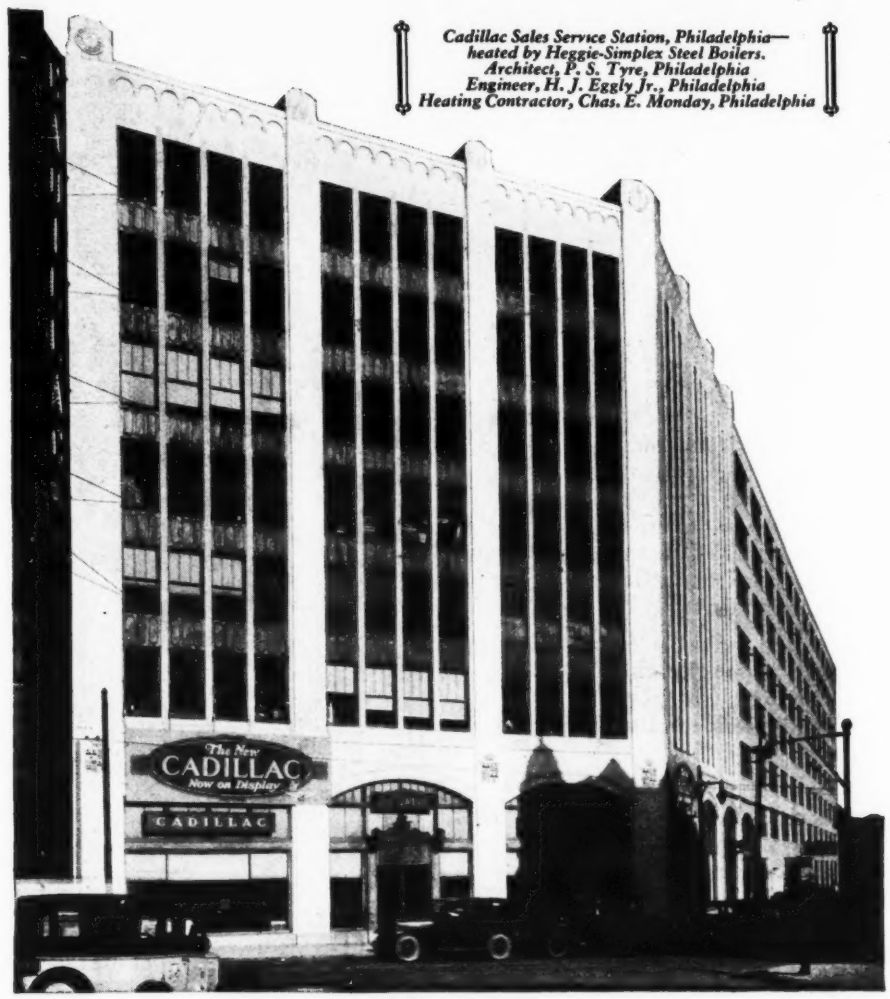
no other ventilator gives

because Univent results are obvious.

Better health and attendance records—better concentration of pupils—satisfied teachers—these are some of the results credited to the Univent by school authorities, architects and engineers everywhere who endorse it as the most simple, efficient and economical system of ventilation known. Write for free book of facts, No. 29. The Herman Nelson Corporation, Moline, Illinois.

UNIVENT (TRADE MARK)

VENTILATION



Cadillac Sales Service Station, Philadelphia—heated by Heggie-Simplex Steel Boilers.
Architect, P. S. Tyre, Philadelphia
Engineer, H. J. Eggly Jr., Philadelphia
Heating Contractor, Chas. E. Monday, Philadelphia

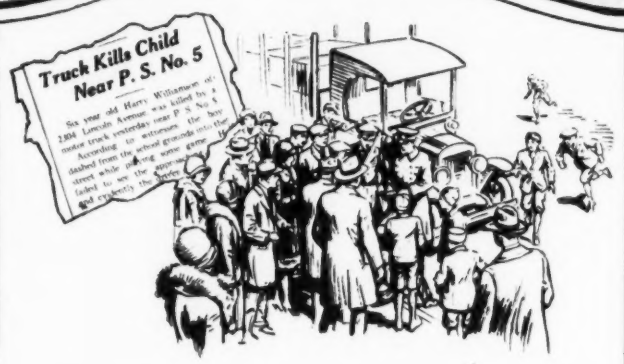
Choice of Careful Corporations—

WHERE heating must be even, sure and economical—in the buildings of leading corporations all over the country—you find Heggie-Simplex electric-welded steel heating boilers in steadily increasing numbers. The most modern of heating equipment—making certain the most satisfactory service at the lowest final cost.

Heggie-Simplex Boiler Co., Joliet, Illinois. Representatives in principal cities — telephone and address listed under "Heggie-Simplex Boiler Company."

HEGGIE-SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS



"This must not happen again!"

A child darts heedlessly off the playground into the street . . . and into danger. A tragic accident occurs. Then, immediate action is taken to prevent another such tragedy. Officials and public unite in a common resolution . . . This must not happen again!

It need not have happened at all. An Anchor Playground Fence keeps the children within the safe area of the playground. A high, unclimbable fence stands between them and danger.

Anchor Fences combine everlasting service and pleasing appearance. Heavy galvanizing, and the strongest posts and gates made insure unusual strength and long life. Fine lines, graceful square terminal posts, and the new Anchor-Weld Wire Gates make Anchor Fences exceptionally attractive.

Anchor Sales and Erecting Service is nation-wide. A phone call, wire or letter puts it at your disposal.

ANCHOR POST FENCE COMPANY
Eastern Ave. and 35th St. Baltimore, Md.
Branch Offices and Sales Agents in Principal Cities

ANCHOR Fences

PROTECTION.. strength *and beauty* as well

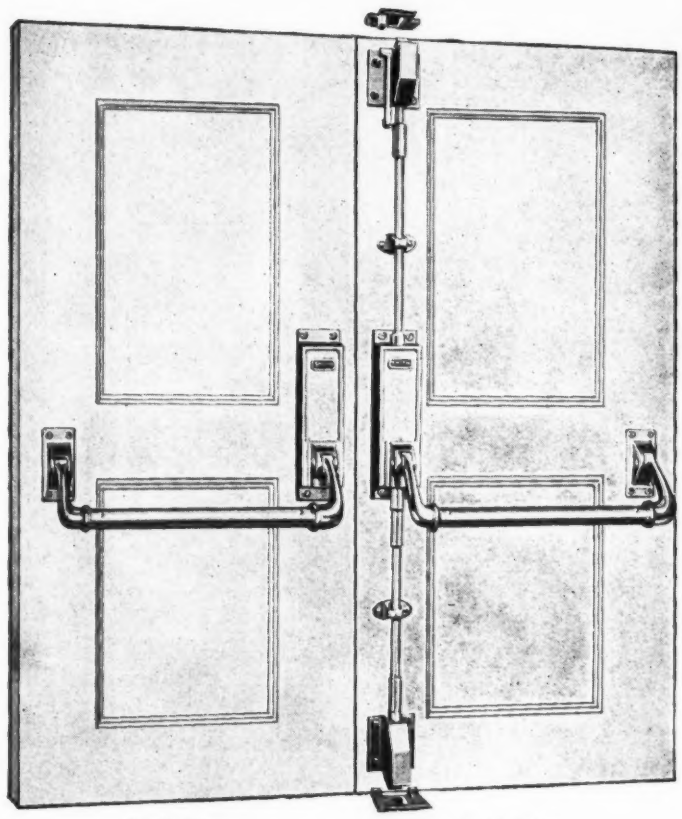


" BUY THE FENCE WITH THE *STRONGEST* POSTS"

SMITH'S IMPROVED PANIC EXIT LOCKS

NO. 80 LINE

Gravity Panic Exit Bolts



Inside View Has Outside Trim. *Inside View No Outside Trim.*

Bolts are operated by a slight pressure on the Cross Bar.

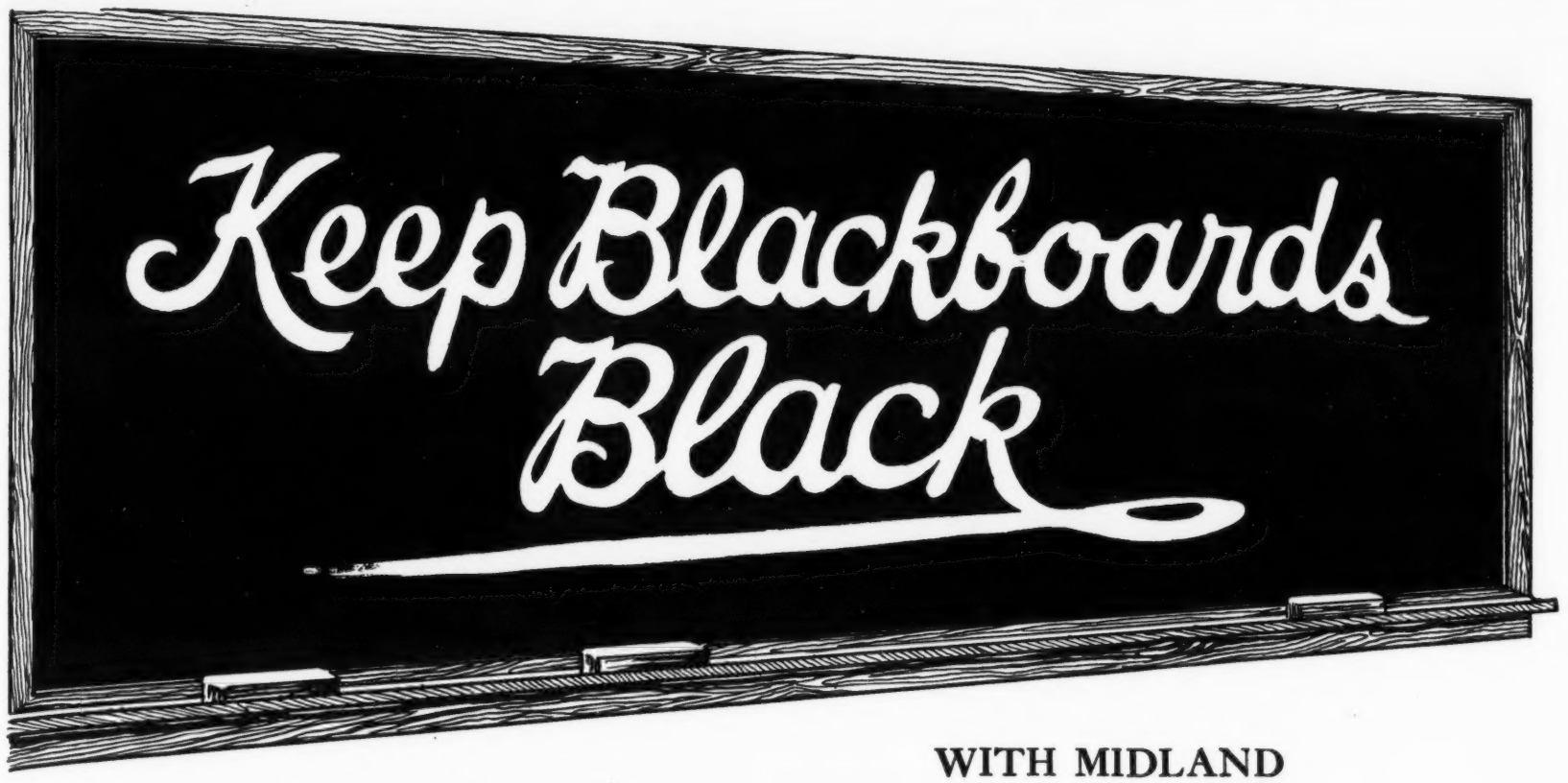
Bolts are not dependent on springs for opening or closing operation.

Simple but sturdy in construction and easily installed.

Will operate perfectly in connection with standard makes of door closers.

Catalogue No. 30 with Supplement "A" sent on request..

Manufactured by
THE STEFFENS-AMBERG CO.
260-270 Morris Ave.
NEWARK, N. J.



WITH MIDLAND

BLACKBOARD CLEANER

BLACKBOARDS are kept an intense BLACK when this cleaner is used. It removes all traces of haze and scum and the grayness of the board is gone. A black blackboard affords clear-cut contrast to the chalk and makes reading from all parts of the room easier. Eye strain is eliminated. After the first few cleanings with Midland Blackboard Cleaner an occasional cleaning will keep the board in perfect condition.

MIDLAND SCHOOL PRODUCTS for Health and Comfort in the Schoolroom are in use the country over—

MIDLAND LIQUID

WAXOLEUM

For the perfect cleaning and polishing of wood work, wood floors, linoleum, desks and seats. Waxoleum does not leave an oily or sticky finish. Remarkable cleansing qualities are combined with a rapid brilliant polish. Keeps things looking like new.

In halls, corridors or wherever there are Tile, Marble or Terrazzo floors

MIDLAND LIQUID

TILEOLEUM

THE PERFECT CLEANSER—
will serve you best.

A penetrating liquid, TILEOLEUM works its way into the pores of the surface being cleaned. It loosens and lifts the dirt OUT. Midland Tileoleum—The Perfect Cleanser, is neither a soap nor an acid—it leaves no film on the floor. It has no "burning" action and will not injure or mar the color or smoothness of Tile, Marble or Terrazzo.

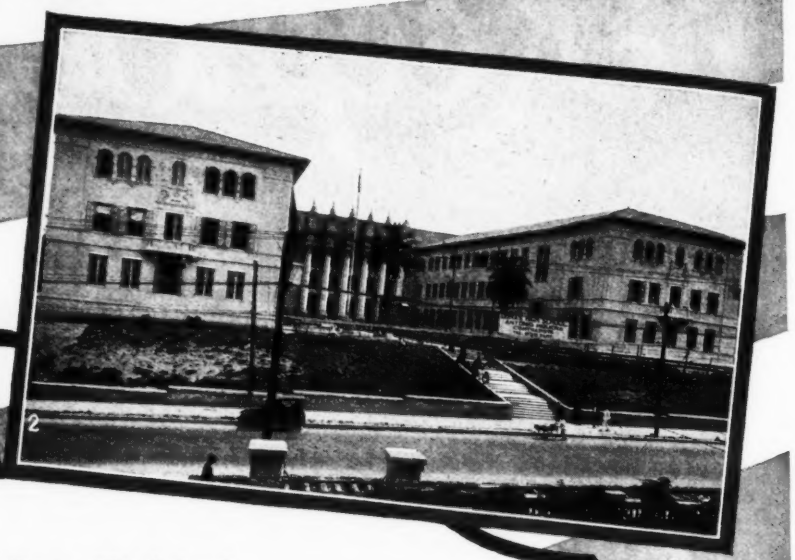
Sales representatives are located in all principal cities. We will be glad to arrange for FREE DEMONSTRATION of any Midland Product in your school without obligation to you. Write today.

MIDLAND CHEMICAL LABORATORIES, INC.
DUBUQUE, IOWA, U. S. A.

PITTSBURGH *Proof* Products

Glass - Paint - Varnish - Brushes



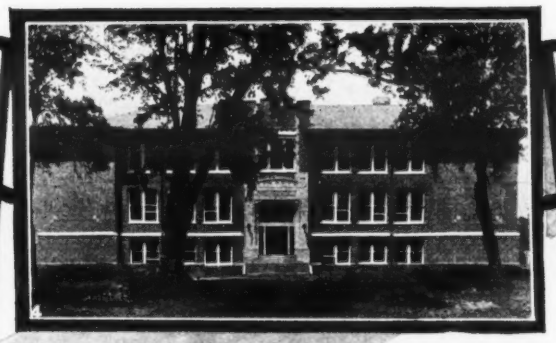


These Buildings Finished

With Velumina Washable Wall Paint

1. East Fort Meyers, Fla.—East Fort Meyers High School
2. San Juan, Porto Rico—Central High Scool
3. Galveston, Texas—Ball High School
4. Gilman, Illinois—Gilman High School
5. Piper City, Illinois—Piper City High School
6. Galveston, Texas—Central High School
7. Amsterdam, New York—New Junior High Scool
8. Weyauwega, Wisconsin—Weyauwega High School
9. Kansas City, Missouri—Central Junior High School
10. Gueydan, La.—Gueydan High School
11. Muncie, Indiana—Muncie High School
12. Kansas City, Missouri—Westport Junior High School
13. San Antonio, Texas—Breckenridge High School
14. Petersburg, Virginia—Petersburg High School
15. Garber, Oklahoma—Garber High School
16. Pittsburgh, Pa.—Chatham Junior High School

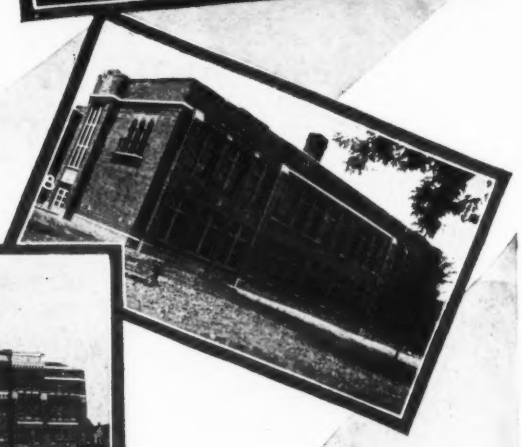


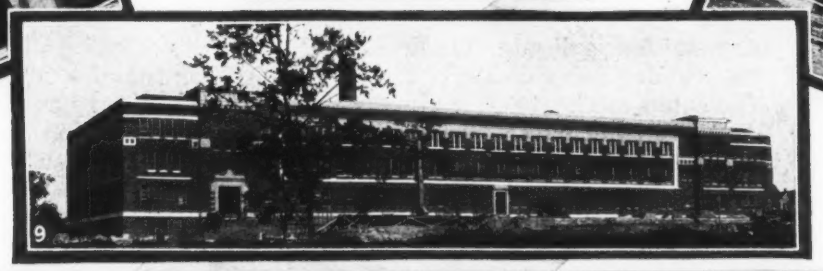






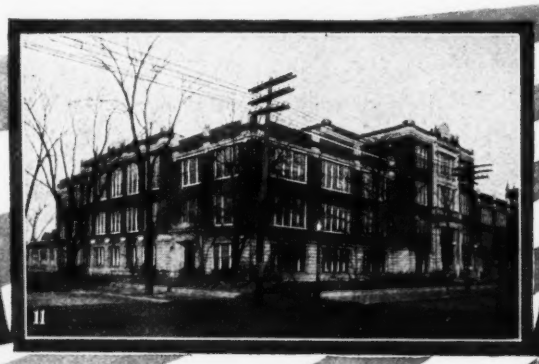




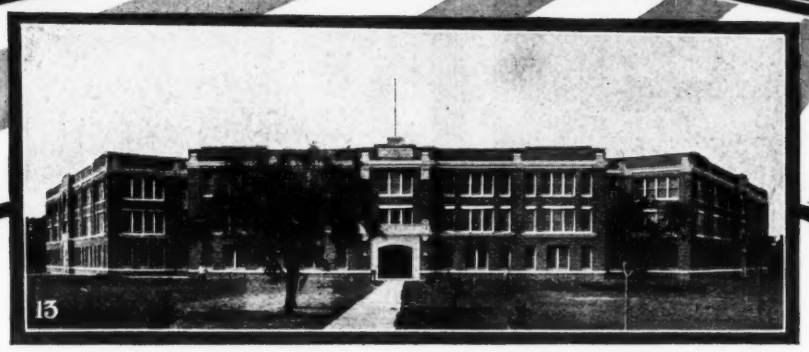


PITTSBURGH PLATE









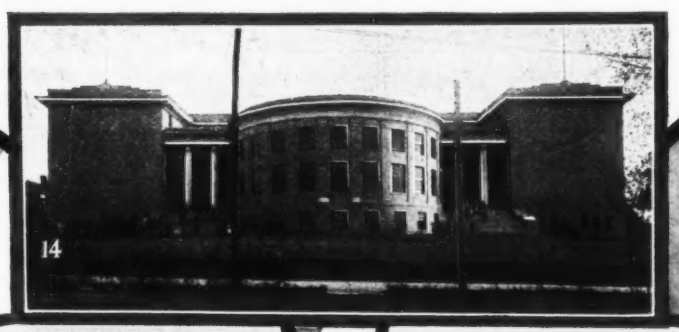
HERE are some of the schools throughout America whose walls are soft toned, beautiful, and of uniform light diffusion, without glare or lustre! Sanitary and cleanly! These walls are finished with—

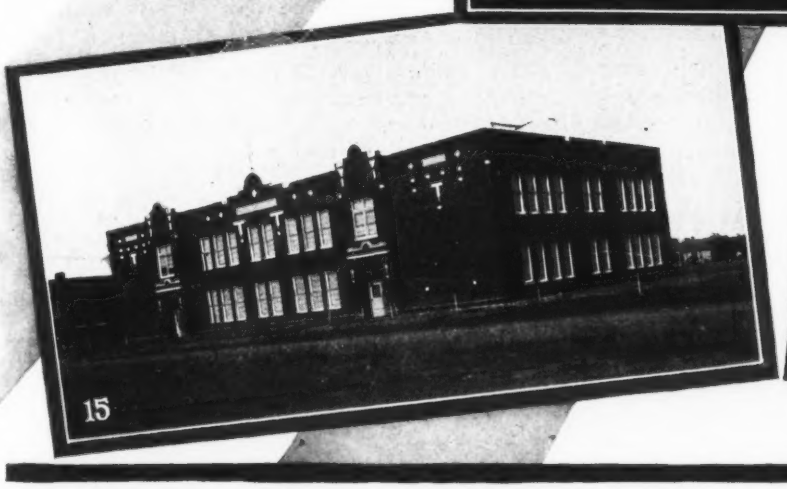
Velumina

Washable Wall Paint

No pores to absorb dirt! Finger prints or pencil marks can easily be washed off with soap and water. Velumina is ideal for the school building. Send for the Velumina Color Book. This book contains fifty-four samples of Velumina colors; sixteen regular tints. twenty intermixed shades, and eighteen examples of Filigree Finishes.



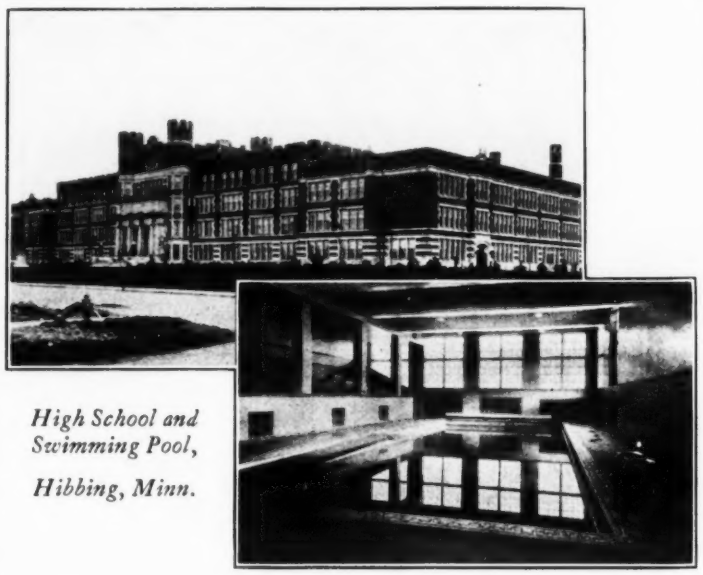






GLASS CO.

Paint and Varnish Factories
Milwaukee, Wis. ⸗ Newark, N. J.
Portland, Ore. ⸗ Los Angeles, Cal.



High School and Swimming Pool, Hibbing, Minn.

HERE THE STUDENTS "Swim in Drinking Water"

THE health of the students at the magnificent High School at Hibbing, Minn., is protected by the chlorination of every drop of water that enters the swimming pool.

A modern, efficient, recirculating system is installed. The water is continuously pumped from the pool—filtered, heated, sterilized with chlorine and returned to the pool — as pure as drinking water—meeting the most exacting requirements of the supervising health authorities.

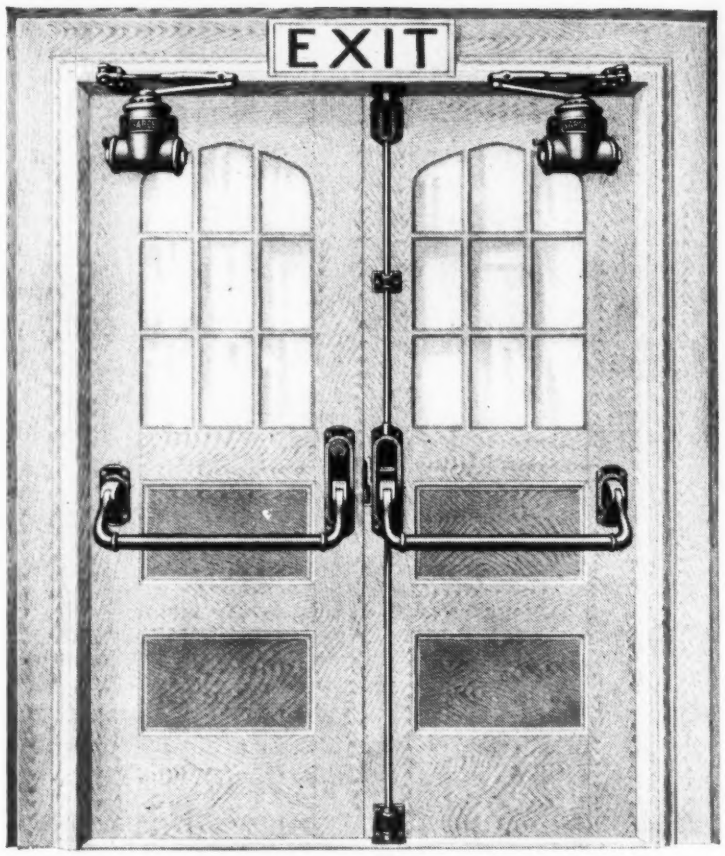
—And because the water is chlorinated there is a residual sterilizing action imparted to every drop of water in the pool — thus insuring its hygienic purity at all times.

At hundreds of school pools in North America the students "Swim in Drinking Water"—because the pools are equipped with W & T Chlorine Control Apparatus.

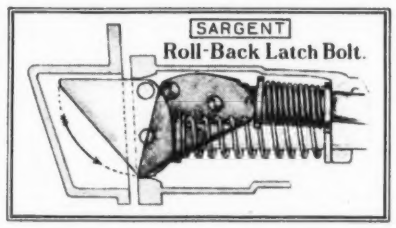
Let us send a copy of our Technical Publication No. 41.

WALLACE & TIERNAN
COMPANY, INCORPORATED
Manufacturers of Chlorine Control Apparatus
NEWARK, NEW JERSEY
NEW YORK CHICAGO KNOXVILLE SAN FRANCISCO MINNEAPOLIS PITTSBURGH DALLAS KANSAS CITY LOS ANGELES SEATTLE ST. LOUIS BUFFALO HARRISBURGH INDIANAPOLIS DETROIT WALLACE & TIERNAN, LTD., TORONTO, CANADA
WALLACE & TIERNAN, LTD., LONDON, ENGLAND

A new fire-exit latch bolt that *can't be jammed*



Not even the pressure of a panic-driven crowd can make the Sargent roll-back latch stick



School officials, who are responsible for the protection of the lives of the pupils and are anxious to make proper provision for quick exit in case of fire or panic will be interested in this new development which has become the standard Roll-Back action for

SARGENT

Fire Exit Door Bolts.

The improved action is shown by the detailed drawing. The Cross Bar does not withdraw the bolts, but releases the deadlocking mechanism, allowing the bolts to be rolled back into the case of the lock as the doors are pushed open.

Security.

The Latches provide complete security and prevent entrance from the outside of the building when the school is not in session, while they can be arranged to permit entrance during school hours if desired.

Quick Exit At All Times.

is provided and in case of necessity the doors can be instantly opened by slight pressure on the handle Bars at any point.

Door Closers

close the doors, during their day by day use, quickly and quietly, the application shown in the illustration with the Sargent special foot (No. 35) being particularly desirable.

Pamphlet illustrating and describing Fire Exit Door Bolts will be mailed upon request.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

SARGENT & COMPANY

Manufacturers

NEW HAVEN, CONN.

New York Chicago

RUBBERSTONE

Asphalt Tile Flooring

"Built Like a Highway -for Wear"

Passing Every Test

RUBBERSTONE TILE FLOORING enjoys a well-deserved popularity among educational institutions of all kinds, because it is—

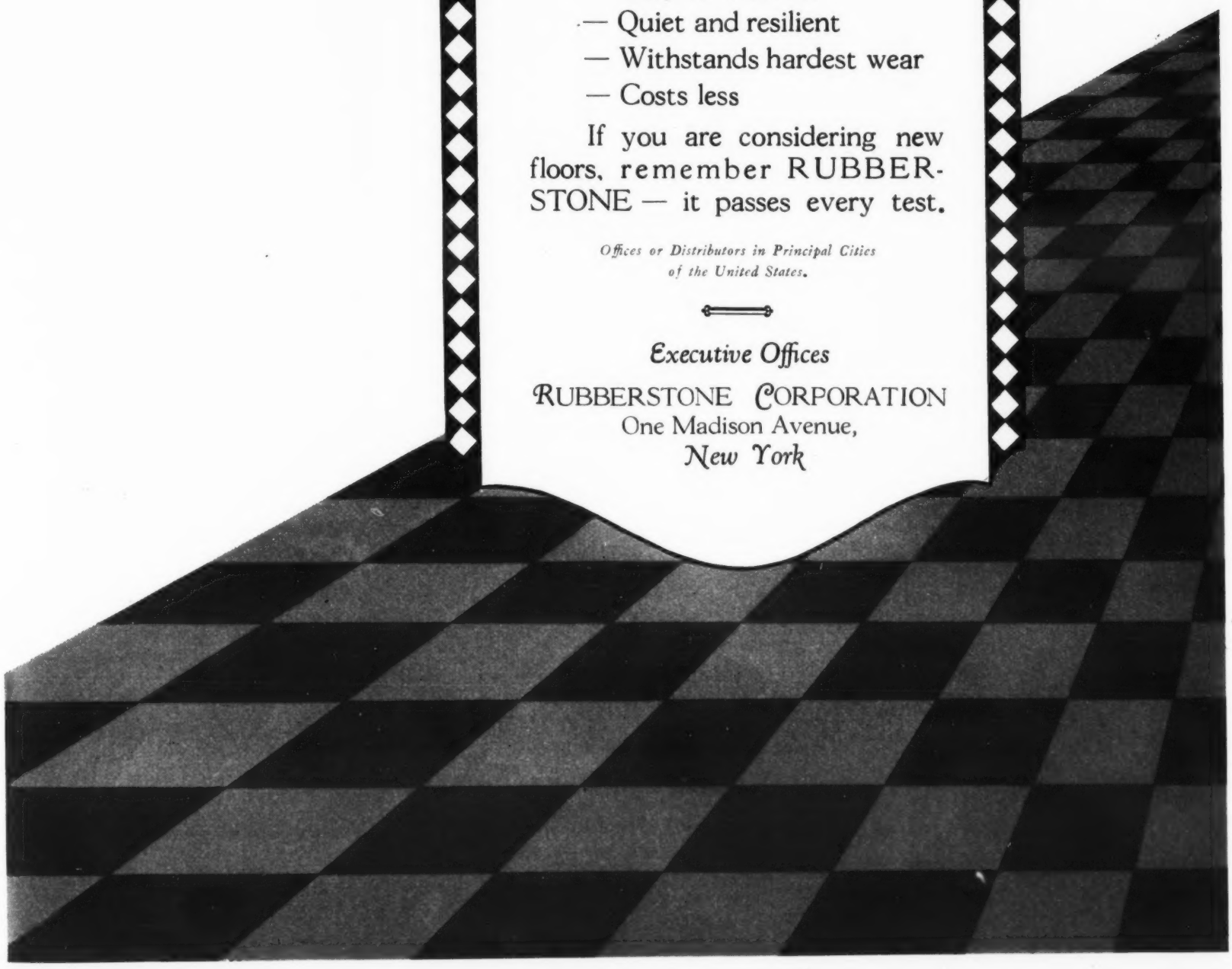
— Good to look at
— Easy to walk on
— Quiet and resilient
— Withstands hardest wear
— Costs less

If you are considering new floors, remember RUBBERSTONE — it passes every test.

Offices or Distributors in Principal Cities of the United States.

Executive Offices

RUBBERSTONE CORPORATION
One Madison Avenue,
New York



SCHOOL ARCHITECTS DIRECTORY

J. WILLIAMS BEAL, SONS
ARCHITECTS
185 DEVONSHIRE STREET
BOSTON, MASSACHUSETTS

H. A. Foeller, A. I. A. — M. W. Schober, A. I. A.
FOELLER & SCHOBER
ARCHITECTS
GREEN BAY, WISCONSIN

HERSH & SHOLLAR
Specialists in School Building Design
ALTOONA, PENNA.
Registered Architects in Pennsylvania
Members So. Penna. Chapter American Institute Architects

F. E. BERGER R. L. KELLEY
Architects
Specialists Educational Buildings
LINCOLN BUILDING, CHAMPAIGN, ILL.

FRAMPTON & BOWERS
Registered Architects
Fifteen years in planning and constructing School Houses
SIMPLICITY IN ARCHITECTURAL DESIGN
412 11th St. Huntington, W. Va

WILBUR A. HITCHCOCK
ARCHITECT
206 Grand Ave., Laramie, Wyo.
SPECIALIZING IN EDUCATIONAL BUILDINGS

BONSACK & PEARCE
WILL MAKE SURVEY OF YOUR NEEDS
Complete Architectural & Engineering Services by School Specialists
411 Olive Street St. Louis, Mo.

MARTIN J. GEISE, Architect
I make a Specialty of Designing School Buildings in Illinois, Iowa, and Missouri. Over 20 Years Experience.
QUINCY, ILL. 8th and Main Sts. AND KEOKUK, IOWA State Central Saving Bank Building, 6th and Main

HOLMES & FLINN
Architects
Specializing in Educational Buildings
8 S. Dearborn St., Chicago, Ill.

C. O. BOYCE.
ARCHITECT
SCHOOL SPECIALIST
ATLAS BANK BUILDING
CINCINNATI OHIO

Bertram E. Giesecke — A. Watkins Harris
GIESECKE & HARRIS
ARCHITECTS
SPECIALIZING IN SCHOOL DESIGN
207 W. 7th St. AUSTIN, TEXAS
513 Second National Bank Bldg. HOUSTON, TEXAS

WARREN HOLMES - POWERS COMPANY
ARCHITECTS AND ENGINEERS
Inventors of the "HOLMES" System of School Planning
Surveys made by our Educational Department
64 W. Randolph St. CHICAGO, ILL.
112 E. Allegan St. LANSING, MICH.

HARRY E. BOYLE & CO.
Architects and School Specialists
Furniture Exchange Building
EVANSVILLE, IND.
Licensed Architects State of Illinois

HARRY M. GRIFFIN
ARCHITECT
SPECIALIZING IN EDUCATIONAL BUILDINGS
309 North Grandview Ave. — Penn Sta.
DAYTONA BEACH, FLORIDA.

HUTCHINS & FRENCH
Architects
11 Beacon Street, Boston, Mass.

IRWIN T. CATHARINE, A.I.A.
ARCHITECT
School Buildings of Distinction.
FRANKLIN TRUST BUILDING, PHILADELPHIA

GUILBERT & BETELLE
Architects
Chamber of Commerce Building
Newark, New Jersey

WM. B. ITTNER, Inc.
Fellow, American Institute of Architects
A Quarter Century in School-house Planning and Construction
Nineteen Years—Architect, Board of Education, St. Louis, Mo.
Superior Architectural and Engineering Service Rendered

CHILDS & SMITH
Architects
720 North Michigan Avenue
Chicago, Ill.

EDWARD HAHN, Architect
School Architecture
Central Nassau Building, Hempstead, N. Y.

LEE & HEWITT
ENGINEERS and ARCHITECTS
152 Market St. PATERSON, N. J.
53 Park Place NEW YORK, N. Y.
Specialists in School Design, Construction and Equipment

COFFIN & COFFIN
ARCHITECTS
522 FIFTH AVENUE
NEW YORK CITY

HAMILTON FELLOWS AND WILKINSON
ARCHITECTS AND ENGINEERS
814 Tower Court, Chicago
Members of the American Institute of Architects

LEWIS & DOUGHERTY
Architects
35 North Dearborn St., Chicago, Ill.

FRANK IRVING COOPER CORPORATION
ARCHITECTS ENGINEERS
SPECIALIZING IN SCHOOLHOUSE PLANNING
172 Tremont St., Boston, Massachusetts

Wm. G. Herbst, A. I. A. — E. O. Kuenzli, A. I. A.
HERBST and KUENZLI
ARCHITECTS
Educational and Public Buildings
130 Wisconsin Ave. Milwaukee, Wis.

Joseph C. Llewellyn F.A.I.A. — Ralph C. Llewellyn M.W.S.E. and A.I.A.
JOS. C. LLEWELLYN CO.
ARCHITECTS and ENGINEERS
38 S. Dearborn St.
Chicago



MALCOMSON & HIGGINBOTHAM
Architects
1217 Griswold St., Detroit, Mich.

IRVING K. POND, C. E., F. and Past Pres. A. I. A.
ALLEN B. POND, F. A. I. A.
EDGAR MARTIN, A. I. A. M. Am Soc. C. E.
ALBERT L. LLOYD
POND & POND, MARTIN AND LLOYD
ARCHITECTS
6 North Michigan Avenue, CHICAGO, ILL

OREN THOMAS
SCHOOL ARCHITECT
508 Old Colony Bldg. DES MOINES, IOWA

W. H. McLEAN
ARCHITECT
713 TREMONT TEMPLE, 88 TREMONT ST., BOSTON, MASS.
Specialist in Designing and Planning of School Buildings

WALTER A. RABOLD, Inc.
ARCHITECTS
Educational Survey and Preliminary Sketches free to Boards of Education.
Superior Planning enhances effective curriculum.
509 Insurance Center Bldg. Cleveland, Ohio
404 Martin Bldg. Canton, Ohio

TOOKER & MARSH
ARCHITECTS
101 Park Ave. New York City, N.Y.

MORISON & WALLACE
ARCHITECTS & ENGINEERS
222 West Adams Street
Chicago, Ill.

ROBERT J. REILEY
ARCHITECT
12 East 41st St. New York, N. Y.

CHARLES L. TROUTMAN
Registered Architect & Engineer
School Specialist
410 American Trust Building, Evansville, Ind.

KARL D. NORRIS
ARCHITECT
205 Calumet Building Phone 282
EAST CHICAGO -:- INDIANA

A. W. E. SCHOENBERG
ARCHITECT
OLEAN, N. Y.

HENRY H. TURNER
Architect, Institutional Specialist
Michigan Trust Building Grand Rapids, Michigan
Architectural, Engineering Equipment and Consulting Service
Architect Board of Education City of Grand Rapids 1909 to 1920

PERKINS, CHATTEN & HAMMOND
SCHOOL ARCHITECTS
HOMER DAVIS, EDUCATIONAL CONSULTANT
160 North LaSalle Street Chicago, Illinois

JOHN A. SCRIBBINS
ARCHITECT
600 Vernon Avenue GLENCOE, ILL.
Specializing in Educational Buildings

Frank Upman, A. I. A. Percy C. Adams, A. I. A.
UPMAN & ADAMS
REGISTERED ARCHITECTS
Woodward Bldg. Washington, D. C.

Edward A. Peterson Gilbert A. Johnson
PETERSON & JOHNSON
Architects Board of Education City of Rockford, Ill.
Sw. American Bank Rockford, Ill.

ERNEST SIBLEY, A. I. A.
ARCHITECT
LAWRENCE C. LICHT, Associate
PALISADE, Studio on the Palisades
NEW JERSEY Opposite New York City

Van Leyen, Schilling & Keough
Architects and Engineers
3440 Cass Avenue, Detroit, Michigan
Specializing in EDUCATIONAL and Society Buildings
Our Organization Embraces Architects and Specialists in Structural, Heating, Ventilating, Electrical and Power Engineering

JOHN NOBLE PIERSON & SON
ARCHITECTS & ENGINEERS
Specialists in School House Construction
Over Two-Hundred Schools
198 Jefferson Street, Perth Amboy, N. J.

Wm. W. Slack L. W. Slack
WM. W. SLACK & SON
SCHOOL ARCHITECTS
Members of American Institute of Architects
Trenton Trust Bldg. Trenton, New Jersey

H. J. VAN RYN, A.I.A. G. J. DE GELLEKE, F.A.I.A.
VAN RYN & DE GELLEKE
ARCHITECTS
FourteenYears-Architect School Board, Milwaukee, Wis.
726 CASWELL BUILDING, MILWAUKEE, WISCONSIN

Philip R. Hooton, A.I.A. Archie N. Schaeffer, A.I.A.
Edwin Roozen Edgar E. Lundeen, A. I. A.
ASSOCIATES OF
A. L. PILLSBURY
ARCHITECT
Specializing in School Buildings. Bloomington, Illinois.

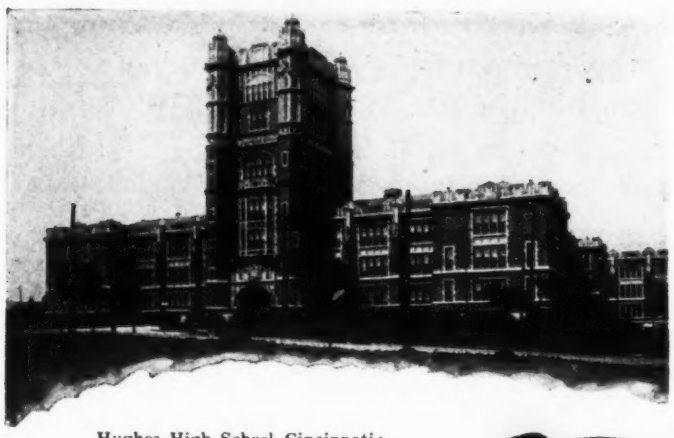
N. S. SPENCER & SON
ARCHITECTS
Specializing in Educational Buildings
180 N. Michigan Avenue CHICAGO, ILL.

Edw. J. Wood, A. I. A. Carleton C. Wood
EDWARD J. WOOD & SON
Architects
Specialists in School Design
We also furnish Consulting Service to School Boards
Lowndes Building Clarksburg, W. Va.

C. Godfrey Poggi
and
William B. Bragdon
ARCHITECTS
Elizabeth, New Jersey

STARRETT AND VAN VLECK
ARCHITECTS
Equitable Life Building
393 Seventh Avenue, New York, N. Y.

J. C. WOOD CO.
ARCHITECTS
Specializing in School Buildings
Licensed in State of Illinois
410 Howes Block CLINTON, IOWA



Hughes High School, Cincinnati: Tietig & Lee, Architects. *Principal C. M. Merry Says: "The Kernerator is a valuable asset to the lunch room."*



Modern Schools destroy garbage and waste instantly —without odor or garbage cans!

Away with the dirty, filthy, foul smelling garbage can! is the cry of school boards who follow the trend of the times when planning new schools. For they know the health advantages and economies in dropping all garbage and waste into the Kernerator's handy hopper doors. Even when some cost-paring is necessary—the Kernerator is left in the plans.

What the Hughes High School says is typical of the testimonies received from dozens of prominent, modern and attractive schools, academies and seminaries, both large and small, in every part of the country.

If you are planning to erect a new school—modernize it! Be sure you eliminate every garbage can—because there is a safe, sanitary, more economical way to dispose of all refuse from classrooms, playgrounds and lunch rooms!

Here's What Kenerator Assures:

1. Overcomes the chief cause of 75% of school fires through ridding basement of trash piles.
2. Banishes the trucking of waste paper and sweepings to the basement.
3. Entirely does away with the expense of buying, cleaning and replacing of garbage cans.
4. Provides for instant disposal of refuse from cafe and cafeteria.
5. Makes it unnecessary for foul-smelling garbage wagons to call for garbage.
6. Provides more sanitary surroundings, and greater health assurance.
7. Costs nothing to operate or maintain—requires no fuel —an occasional match burns the waste and air dried garbage.

Kernerator school models as low as $250 and the masonry adds but little more when the regular chimney is used. Send for our new illustrated school book which gives valuable information on uses and installation of Kernerator. You should have this data in your files.

KERNER INCINERATOR COMPANY

733 E. WATER STREET MILWAUKEE, WISCONSIN

KERNERATOR

REG. U.S. PAT OFF

THE CHIMNEY-FED INCINERATOR

Garbage and Waste Disposal



Instant, Sanitary, Costless.



Notre Dame Academy, Notre Dame, Indiana, has its own laundry, equipped throughout with "American" labor-saving machinery.

Why NOTRE DAME'S weekly wash is handled with such precision . . . .

Notre Dame Academy, as a complete institution within itself, quite logically has its own laundry, supervised by its own officials. And, like most modern school laundries, this indispensable department is completely "American"-equipped—from sorting table to presses. Prompt; economical; absolutely dependable.

The American Laundry Machinery Company has installed scores of similar school laundries. Let us know your enrollment figures and the amount of floor space you have available — we will be glad to furnish facts and photographs of typical laundry installations in schools the size of yours.



A sectional view of Notre Dame's efficient laundry department, designed and installed by the experienced engineers of The American Laundry Machinery Company.

The American Laundry Machinery Company

Norwood Station, CINCINNATI, OHIO

The Canadian Laundry Machinery Co., Ltd.
47-93 Sterling Road, Toronto 3, Ont., Canada

Agents: British-American Laundry Machinery Co., Ltd.
Underhill St., Camden Town, London, N.W.1, England



What she *learns* depends on what she *eats*

IF she eats a cold lunch from home, or buys a "red hot" and an ice cream cone from a nearby stand...you'll soon see the difference in her school work. The truth is that proper nourishment is needed to stimulate growing minds. Without the aid of good food the educator is working against impossible odds.

The function of the School Cafeteria is two-fold: To serve good food in wholesome surroundings; and to guide, gently and surely, adolescent tastes in food. Food habits can be made in these formative years that are essential to mental and physical growth, and assure a proper health foundation for the years beyond school age. For these reasons *every school* needs a cafeteria!

Van Cafeterias have a recognized place in education. They are serving so efficiently and economically in schools of every size and type that they have established precedents in the school field. Van Cafeteria Equipment is designed for efficiency under the severest use and abuse. It meets every budget, and by its extraordinary durability it reaffirms its economy year after year after year.

Back of Van Equipment is the most widespread and authoritative engineering organization in the world—leading designers of School Cafeterias. Educators are invited to discuss any phase of this subject, without obligation. A catalog of Van Equipment will be sent on request.

THE ALBERT PICK-BARTH COMPANIES

ALBERT PICK & COMPANY
208-224 W. RANDOLPH STREET, CHICAGO, ILL.



L. BARTH & CO., INC.
32 COOPER SQUARE, NEW YORK, N. Y.

THE JOHN VAN RANGE CO., CINCINNATI, OHIO, *Manufacturing Division*

COLUMBIA SANITARY STEEL ADJUSTABLE DESKS COLUMBIA SANITARY STEEL ADJUSTABLE DESKS

IMPORTANT NOTICE—

Reduction in Freight on Indestructo shipments the freight will be cut ⅓ to the points, making the freight on Indestructo us quote you delivered prices.

More than 100,000 sold in 1927 to 976 cities and two towns, scores of which sent repeat orders. Send for list.

COLUMBIA SCHOOL
INDIANAPOLIS,



Made to fasten to floor without change if so ordered

Code Word Indestrucstand



331 with drawer.



S330 with drawer, but without body.

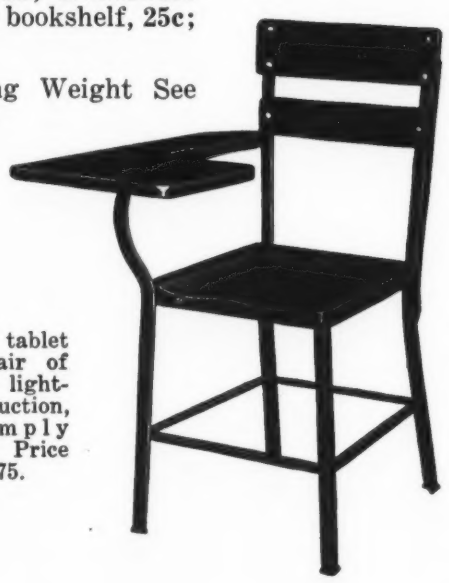
STANDARD INDESTRUCTO ADJUSTABLE MOVABLE DESK

Seat of standard scroll shape. Saddled seat will be furnished on request. Top of standard rectangular pattern with flush top inkwell as shown in sizes 0 to 4. Top is adjustable in height, in tilt, and has an adjustable leveling device. Wood parts are of hard maple, walnut finish. (Oak will be furnished on request.) The steel parts are dark olive green. The feet are shod with gilding domes, or upon request will be equipped with floor fastenings as shown. Steel book box as shown.

No. 330-1 and 2 @ $5.65; No. 333 and 4 @ $5.50; No. 334 and 5 @ $5.35.

Model S, without drawer bottom or panels, known as **S330, S331 and S332 @ $5.35; S333 and S334 @ $5.20; S335 and S336 @$5.05;** B Drawers **@ $1.15** extra; bookshelf, **25c;** panel, **20c.**

For Shipping Weight See Opposite Page.



No. 461 tablet arm chair of slightly lighter construction, but amply strong. Price each $3.75.



COLUMBIA INDESTRUCTO TABLET ARM CHAIR

No. 420

Above is an illustration of the Columbia Indestructo Tablet Arm Chair. The frame is of steel, arc welded to prevent breakage, and is finished in olive green. Back slats are of quartered oak, while the seat and arm are of plain oak or maple. Price of each $4.25; with perforated shelf $.25 extra.

EFFECTIVE APRIL 30TH.

Desks and Chairs. In less than car load East and ½ to the Western and Southern furniture less than on cast iron desks. Let

More than 60,000 sold in 1926 to 694 cities or towns. Send for list.

SUPPLY COMPANY,
INDIANA.



THE COLUMBIA INDESTRUCTO ADJUSTABLE MOVABLE DESK

The top is adjustable in height, in tilt, and has a leveling adjustment not possessed by any other desk. The position of the quartered oak back slats are also adjustable.

Wood parts are of oak, finished dark golden, while the steel frames are finished olive green. These desks may be assembled more quickly and more easily than the combination desks.

No. 400-1 and 2, $4.95; No. 403 and 404, $4.80; No. 405 and 6, $4.65; B Drawer, $1.15.

Inkwells with steel swinging holders.. .15
Back panel above bookshelf..... .20

Shipping Weights—Large 34 lbs.; medium 28 lbs.; small 24 lbs.; drawers 7 lbs. 6 and 6; steel shelves 2 lbs.; 1½ and 1.



COLUMBIA INDESTRUCTO KINDERGARTEN CHAIR

Sturdily constructed with a saddled oak seat and curved quartered oak back and a solid steel frame. Made in three sizes. One dozen weigh 110 lbs. and are priced at $16.00. Also the Elementary Tablet Arm Chair at $21.00 per doz.



No. 65 STEEL BOOK CASE WITH DOORS

Impervious to rats, mice or other vermin as well as fireproof. It will keep your libraries in good condition during vacation months as well as during the school term. The shelves are of wood, for better surface for the books and are adjustable.

Dimensions: 12 in. deep by 40 in. wide by 55 in. high, each.....$30.00



SANI-STEEL INSTRUCTOR'S DESKS

This desk may be had with two drawers at $13.00; four drawers at $17.00; with five drawers at $19.50. It has a steel frame and body that is finished dark olive green. The top and drawers of five-ply built up quartered oak, finished dark golden.



No. 450 TEACHERS' CHAIR

Can be used for Teachers, Visitors, Cafeteria, or the Library. Oak seat and quartered oak back are finished dark golden or brown. Has an olive brown steel frame. Priced at $2.85 each.

COLUMBIA SANI-STEEL LOCKERS COLUMBIA SANI-STEEL LOCKERS COLUMBIA SANI-STEEL LOCKERS



7001-C 7000-5

Maintained Quality—

Whenever competitive conditions beget price cutting practices the quality of merchandise is most apt to suffer.

Derby maintains a policy in the manufacture of school equipment which provides that price shall always be predicated on cost. Whatever it may cost to build a quality product is the base of the Derby price.

Derby quality, built into chairs embodying the Thompson correct posture construction, make for the finest of school equipment.

A Derby product is an assurance of honest value.

P. DERBY & CO. INC.

Chairmakers for 84 years

GARDNER, MASS.

One Park Avenue, New York City, N. Y. — **197 Friend St., Boston, Mass.**

READSBORO CHAIR COMPANY

READSBORO, VERMONT

"READSBORO" FURNITURE — QUALITY and SATISFACTION

PORTABLE ASSEMBLY SEATING

SINGLE FOLDING CHAIRS

TABLET ARM CHAIRS

KINDERGARTEN FURNITURE



No. 1019



No. 461

SCHOOL DESKS and CHAIRS

SUNDAY SCHOOL FURNITURE

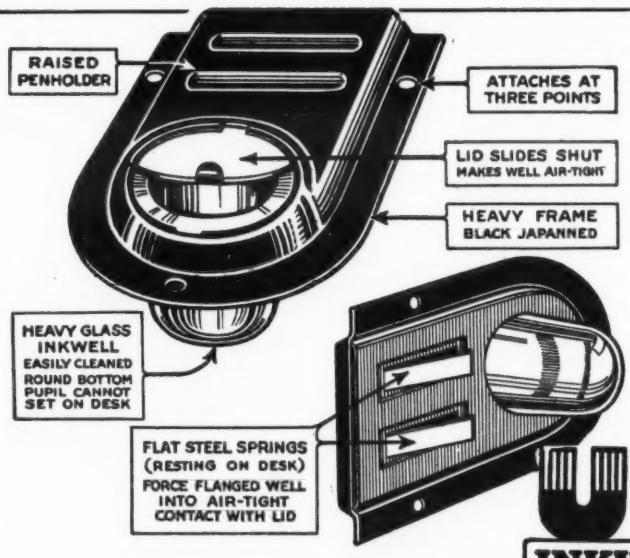
FOLDING TABLES

JUVENILE FURNITURE

SALES ROOMS:

ALBANY, NEW YORK, 11 Steuben Street
ATLANTA, GEORGIA, 55½ Luckie Street
BALTIMORE, MD., 714 N. Howard St.
BOSTON, MASS., 27 Haymarket Square
CHARLOTTE, N. C., 1900 South Boulevard
CINCINNATI, OHIO, S. E. Cor. 3rd and Walnut Sts.
CLAIRTON, PA., 36 Fourth St., North, Wilson Sts.
CLEVELAND, OHIO, 406 Prospect Bldg.
HOUSTON, TEX., 1112 Preston Avenue
KANSAS CITY, MO., 1515 W. Ninth St.
LITTLE ROCK, ARK., New Terminal Warehouse
MINNEAPOLIS, MINN., 36 Fourth St., North,
NEW YORK CITY, N. Y., 1123 Broadway
PORTLAND, MAINE, Box 742
SAN FRANCISCO, CAL., 601 Mission Street
SYRACUSE, N. Y., 204 East Jefferson St.
TRENTON, N. J., 206 West State Street

Send for bulletins, prices, and full information.



INKWELLS THAT LAST!

HUNDREDS more school boards every year are standardizing on U. S. Inkwells for replacements as well as standard equipment. They know from experience that this inkwell costs little, works well, and outlasts two or more ordinary inkwells.

The U. S. Inkwell is dustproof and noiseless. It does not tempt pupils to waste time.

U. S. Inkwells can pass your most rigid examination. Check the answers to these questions:

1. ***Is it easy to install?***
   Yes, just drive in three tacks.
2. ***Will it fit our desks?***
   Yes, it fits desks of any size. (Made in two sizes—Sr., Jr.)
3. ***Is it quiet?***
   Yes, the lid does not rattle nor creak.
4. ***Is it economical?***
   Yes, because of low purchase cost and unusually long life.
5. ***Has it any special advantages?***
   Yes, the tight-fitting lid keeps out dust and prevents evaporation. Pupils cannot tinker with it as easily as with the average desk well.

SEND FOR FREE SAMPLES TODAY

U. S. Inkwells are made and furnished with two size wells, one twice larger than the other. Write for samples of each so that you can see why it is much worth while to specify U. S. Inkwells—and determine which size best meets the needs of your school. You can get U. S. Inkwells from any school supply jobber or direct from our factory. Write today for prices and samples.

U. S. INKWELL COMPANY

410 S. W. 9th STREET, DES MOINES, IOWA

NEW!



New—
Adjustable Features

New—
Silencing Device

New—
Crystal Finish

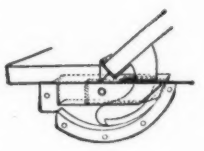
Perfect Design Assures *Perfect Posture*

THE Kundtz Eclipse line of school furniture is built in accordance with the progressive ideas of modern educators. At Kundtz Eclipse desks, a child is comfortably and correctly seated . . . able to concentrate. Examine the latest Kundtz models shown here.

The new improved Kundtz Eclipse adjustable features bring both chair and *desk* to exact height desired.

New Kundtz Eclipse book boxes are extra roomy and balanced so that there is no cramping of the child's knees. Top is finished with Pyroxylin Lacquer, highly resistant to raps and ruler cuts, and absolutely ink acid and waterproof. Metal Parts Finished in the new Kundtz Crystal. Write for sample Panel.

NOW
Classrooms Can be *Quiet*



Lids *can't* be banged down, where the new Kundtz desks are used. The automatic friction stop, the latest Kundtz invention, forces the lid to a *gradual*, noiseless stop. This is a feature of Kundtz desks exclusively. Ask for a demonstration.



Adjustaplex Model No. 627

The movable "Adjustaplex." Permits flexible seating arrangements for group instruction. Easy to adjust. Easy to sweep. Kundtz Eclipse construction makes them practically indestructible. Crystal finish.



Single Pedestal Adjustable Model No. 801

A single pedestal adjustable desk. Easy to sweep around. Beautiful Kundtz crystal finish. Extra large base. Like all Kundtz Eclipse products, built for a lifetime of service.



Single Pedestal-Study Top-Adjustable No. 876

Study top instead of book space. Used in study halls and particularly adaptable in schools using platoon system. Kundtz Crystal finish and sturdy construction.



Single Pedestal Stationary

Companion desk to No. 801 and especially satisfactory in high schools and in certain college classrooms. Like all new Kundtz Eclipse desks, has Kundtz Crystal Finish.

The Theodor Kundtz Company

CHURCH AND ECLIPSE AUDITORIUM SEATING

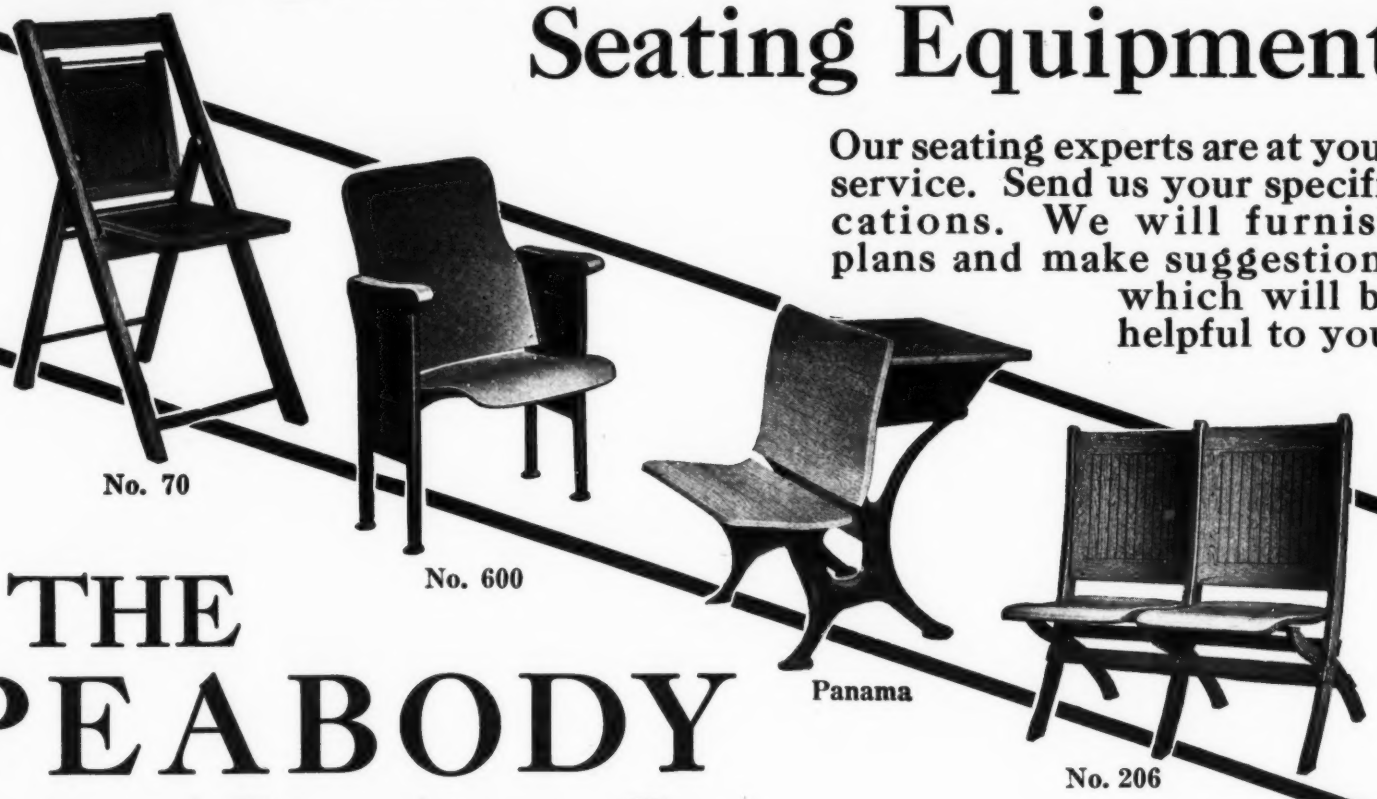
SCHOOL FURNITURE

Cleveland Ohio, U.S.A.

CRYSTAL

The name of a sparkling, olive green, almost glass hard finish being supplied on all metal parts of the new Kundtz desks. Ask for a sample panel.

A Complete Line of School Seating Equipment



No. 70

No. 600

Panama

No. 206

Our seating experts are at your service. Send us your specifications. We will furnish plans and make suggestions which will be helpful to you.

THE PEABODY School Furniture Co.

North Manchester, Indiana

Manufacturers of School Furniture for Twenty-five Years



ALLOWS FREE SPACE FOR SWEEPING

Made in three sizes
Large
Medium
Small

No. 600, illustrating Size "A" Desk, Open Box Style

THE "ARLO" ADJUSTABLE PEDESTAL DESK

The "Arlo" Adjustable Pedestal Desk is our latest contribution to modern hygienic schoolroom seating. A beautiful desk, both in design and finish, it is absolutely sanitary—exceedingly well adapted to the varying needs of any classroom and guaranteed to withstand the strenuous requirements of every type of classroom service.

The pedestal is made of semi-steel, constructed to give greatest strength at the points of greatest strain. The broad, massive base is cup shaped and when screwed to the floor will never pull loose.

The "Arlo" Adjustable Pedestal Desk will last a lifetime; has steel sides and back and the top is made from maple or birch, finished in Arlo Brown (American Walnut).

Adjustments are simple and easily made. Book box chair seat are independently adjustable. This is a distinctive feature and makes it possible to adjust "Arlo" desks to meet the individual requirements of each pupil.

The "Arlo" Line includes The Arlo Adjustable Pedestal Desk with Study Top, The Arlo Non-Adjustable Pedestal Desk, and the Arlo Pedestal Tablet Arm Chair.

Descriptive literature and prices on request.

Flexibility of adjustments assures each pupil being properly fitted, insuring correct posture and real comfort.

Arlington Seating Company

Office and Factory Arlington Heights, Ill.

—Here's the Desk

Where Fixed Seating is Required

The demand now, where fixed seating is required, is for a single pedestal desk.

We have met this demand most admirably and successfully, everyone admits, with this

New National Pedestal Desk



REGULAR PEDESTAL DESK.

The same desk equipped with the Moeser Extended Arm.

The Moeser Extended Arm Rest

Is a wonderful improvement. The back is supported; pupils have adequate writing space with proper arm support; they look straight forward, without twisting—the posture is comfortable, convenient and healthful.

It has the Universal adjustment, that is, vertical and horizontal in ONE operation. To adjust it, merely loosen the set bolt and raise or lower the desk to the height desired. There is no "play" in the joint when locked.

The seat and back are shaped to conform hygienically to the human figure, and afford the maximum amount of comfort.

It is easy to keep clean. There are no grooves, channels or openings where dust can collect.

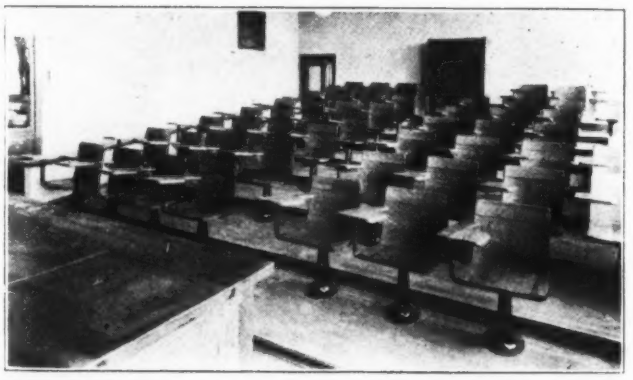
The large base insures permanent fastening to the floor.

The attachment surfaces for top and seat are also larger than those used on other single pedestal desks.

The wood parts used are all made from selected birch, thoroughly seasoned and kiln dried. Seat brackets are of unbreakable malleable steel.

We manufacture desks of many designs. Send for our complete Catalog.

THE NATIONAL SCHOOL EQUIPMENT CO.
Manufacturers of Complete School Equipment
PORT WASHINGTON, WIS.



"National" Pedestal Lecture or Recitation Room Seats, equipped with Tablet Arm — High School, Kenosha, Wis.



"National" Adjustable Pedestal Desks — English Room, Kenosha, Wis., High School.

NATIONAL School DESKS

"Famous for Comfort"

For Every Portable Seating Requirement



No. 90 5-Ply Veneer.

THE folding chair shown above is the pride of the Standard Line. It is very comfortable, strong, neat in appearance and folds very compact. The most critical buyer will find that the construction meets his strictest requirements.

Whatever your need or wherever the occasion demands there is always a Standard Folding Chair that will fill it or help you out of your seating difficulty. Fourteen distinctive styles of Standard Folding chairs have been developed to meet the various needs for school and auditorium seating.

All Standard Folding Chairs are skillfully made of the most select Indiana Hard Maple Stock. This insures a long life of service and satisfaction in your school.

You will find that Standard Folding chairs are more comfortable and restful than the ordinary folding chair because the inclination of the back and the relative plane of the seat are such that every part of the body can relax.

Let us send you further details.
WRITE



No. 44 Swinging Slat Back.

MANY features developed throughout our years of experience as Folding Chair manufacturers have been incorporated in this model. It folds perfectly flat, is non-tipping and will nobly stand up under severe use.

STANDARD MANUFACTURING CO.,

CAMBRIDGE CITY, 1020 S. Foote Street INDIANA, U. S. A.



ELGIN SCHOOL TABLE

Now is the opportune time to become familiar with the new system of group instruction for first and second grades. Efficiency demands the ELGIN. It is a step forward in modern school methods.

A convenient, easily-moved table, permits cleaning of floor space. Hygienic, sanitary. Allows pupils greater freedom, increases seating capacity, reduces costs, and follows out the successful new plan of "group instruction." Send for free booklet, "Seating Efficiency," giving details of this modern method.

RINEHIMER BROS. MFG CO. ELGIN, ILL.
DEPT. OF SCHOOL FURNITURE

SQUIRES INKWELLS

Squires No. 59 Boston Inkwell



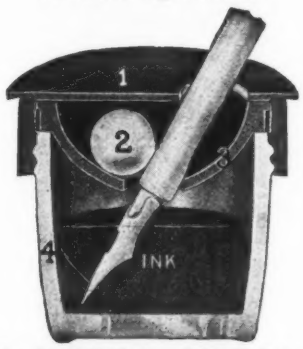
We make the Boston Inkwell with three different styles of tops and three styles of glasses, all interchangeable. They fit a 1-27/32 inch hole.

Squires No. 12 Common Sense Inkwell



Our No. 12 or Common Sense Inkwell is made in three sizes, to fit holes 1½". 1¾" or 1⅞". Corks with Caps or Rubber Corks furnished as desired.

Squires No. 14 Self-Closing Inkwell



No. 14 Self-Closing Inkwell has a Hard Rubber Top and fits a 2 inch hole. It is the best inkwell on the market.

Squires No. 3 or Chicago Inkwell



We furnish a one-lug or a three lug glass for this inkwell which fits a 1-27/32 inch hole. Nickel Plated.

Write for Catalogue, Prices and Samples.

SQUIRES INKWELL COMPANY
508 Second Ave., Pittsburgh, Pa.

STERLING
LIFELONG BLACKBOARD

Guaranteed for the Life of the Building

With a guarantee to last as long as the building—at a cost that is considerate of school board pocketbooks and budgets—Sterling Lifelong Blackboard once installed is off your mind for the life of the building. In better schools—throughout every state in the Union—and in Canada—hundreds of thousands of feet of Sterling are giving exceptional performance year in and year out. Black—and black all through. A finer writing surface, and a body that seasons and improves with age. Warp and buckle proof—strictly fireproof, leading architects and contractors specify Sterling because it's an investment that pays school boards well. If you don't know all about this nationally accepted Blackboard, get the facts now . . . write Department AS-5.

Weber Costello Co.

Chicago Heights — TIME TESTED W.C. SCHOOL SUPPLIES — Illinois.

Again—Imperial Sets A New Standard



Imperial DESKS for every office use
IMPERIAL DESK CO. EVANSVILLE, IND.

This trade mark, on all of our desks, is your guarantee of service, satisfaction and consistent good quality.



Throughout their many years of service in the school field Imperial desks have been accepted as the Standard in teachers' desks. As you well know, improvements and refinements are constantly being made in teachers' desks. Imperial has been concerned only with the newest and best desks for school use. That is why Imperial has established this new high standard for this year.

Besides our old established line, which has been improved upon, we have developed a new line of 30 inch desks. The old line now has quartered oak tops and drawer fronts at the same moderate cost. The new line contains large, roomy, well built desks of plain oak at surprisingly low prices.

The quality construction of Imperial desks is responsible for their appearance and durability. Faultless designs and beautiful finishes permit them to be used in the finest schools. And their long life of trouble-free service makes Imperial desks the logical choice for repeat orders.

Let us send you details and give you the name of our nearest school supply jobber.

IMPERIAL DESK COMPANY ⟷ Evansville, Indiana

"VIKING"—STEEL FOLDING CHAIRS



VIKING No. 500
FOLDS FLAT WITHIN ONE AND ONE-HALF INCHES.

Here are the ideal folding chairs for school use. Being entirely constructed of steel, properly reinforced where strength is needed, they will stand up for years under the bangs, smashes and misuse to which folding chairs are subjected. You have long looked for a chair that would have strength, comfort and beauty — all in one — yet one that would stow away in the least possible space. The "Viking" folding chairs have all these features without sacrificing one for the other.

Whether it be group units for an entire room or extra chairs to fill in odd places, the "Vikings" will always be ready to serve you and when not in use will stack away without any waste space and without slipping or falling.

A request from you will bring complete information on the Viking All Steel Indestructible Folding Chairs.



VIKING No. 1000
FOLDS FLAT WITHIN ONE INCH.

STURDY— RIGID — INDESTRUCTIBLE

One of the leading educators of the country, having used 2288 Viking folding chairs since 1925, and having purchased an additional number in 1927, writes us as follows: "We are very much pleased with the quality and the service that the Viking chairs have rendered us. I do not believe there is a chair on the market of equal quality and price."

Furnished with steel and fibre or full upholstered seats.

MAPLE CITY STAMPING CO.
PEORIA, ILLINOIS

Color finishes: Olive Green, Mahogany, and Walnut.

SERVICE and ECONOMY



The foremost engineering talent, large resources, years of experience and study of school seating requirements plus famous Grand Rapids craftsmanship make Steel seating the greatest seating value ever produced. In addition to the many structural advantages of Steel seating there is, through volume production, extra value and price advantages that deserve your most earnest consideration and comparison.

Every type of seating that schools require can be found in the Steel line.

Our Planning Service is at your disposal to help you solve your seating problems. Write today for complete details.

STEEL FURNITURE CO.
GRAND RAPIDS, MICHIGAN

What makes the Difference in

SAMSON TABLES

Do you appreciate that there is a difference in office and directors' tables for use in the school? **Not a mere theoretical difference,** but a difference in construction resulting in a vast difference in service. Thousands of Samson Tables are still new in every sense of the word — their value undepreciated, some after more than twenty-five years of continuous service.

The fact that the table tops are constructed of five-ply wood gives them permanent strength with a beauty that remains unmarred after years of service. Such construction as "anchoring cleats" on the undersides of Samson Table tops assures rigidity, durability, and smooth moving drawers. And the legs are "taper-miter-joint-boxed" to provide the same thickness of stock throughout the entire tapered box leg. This assures greater strength than solid wood construction.

The Samson line of library, office and directors' tables consists of designs suitable for any or all of your table requirements. Get in touch with us and we will be glad to supply you with any necessary information.

Write for the illustrated catalog.

MUTSCHLER BROTHERS COMPANY

NAPPANEE **INDIANA**



No. 321-A, Quartered Oak.

GUNN

LIBRARY FURNITURE, MECHANICAL & ART DRAWING TABLES, TEACHERS' DESKS, CAFETERIA TABLES

Made in Grand Rapids

"The Furniture Capital of the World"

GUNN Furniture is made by experienced craftsmen who have made furniture building their life's vocation. This insures highest quality of construction, cabinet work and finish.



No. 8062
With Inlaid Lino Top

— GUNN SELF-ADJUSTING TOP —
A Special Convenient Feature

Our Patented Self-adjusting Device permits adjustment of top at any angle by simply raising top to height desired. When top is raised to vertical position the adjustment ratchet is automatically released and top returns to flat position.



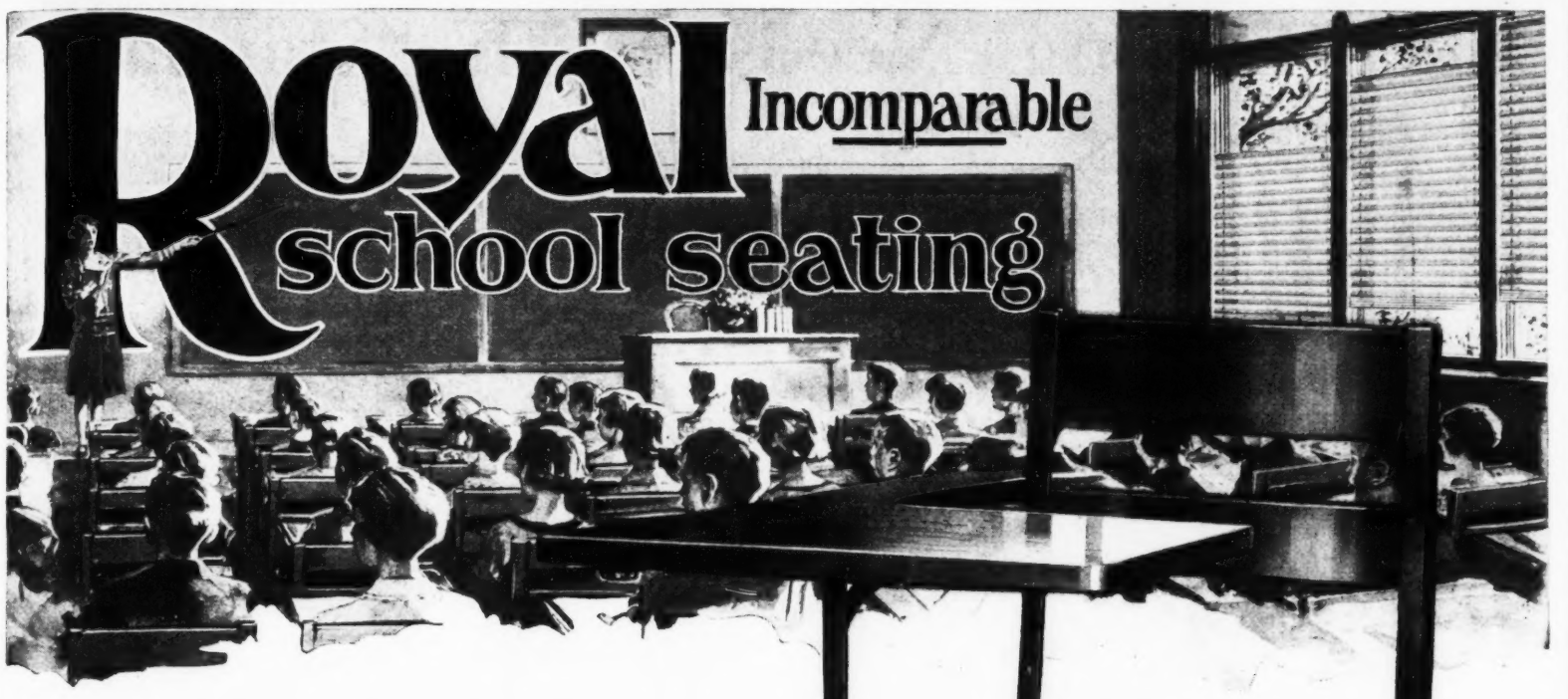
Book Truck
No. 8035

Some Territory Still Open for DEALERS

Write for Catalog

THE GUNN FURNITURE CO.
Grand Rapids, Michigan

Thirty Years Builders of Office Desks and Tables



COMPARISON

is the foundation of all seriously worked-out purchase decisions. Either comparing the cost with benefits to be derived, or comparing one product with another.

ROYAL Metal Furniture invites comparison in finish, choice of material, design and workmanship.

The Frame is double riveted in the same rigid manner as Bridges, Skyscraper Buildings, Ships and Railway Equipment where strain and vibration is the contention. Smooth sliding dome feet eliminate noise and marring of floors. Fine grained Hard Maple woodwork assures the handsomest finish and greatest resistance to marring or scratching.



No. 37
Movable Desk



EVERY ROYAL
its own Salesman

A COMPARISON
is all it asks.

Other Royal Products

TABLET ARM CHAIRS

LABORATORY STOOLS

FOLDING CHAIRS

LUNCH ROOM
FURNITURE
ETC., ETC.



ROYAL Special Features at a Glance

Smooth Sliding Dome Feet—
(Will not scratch or mar floor)

Most Correct Posture—
(Note shape and tilt of seat and back, also position of desk arm)

Hard Maple Woodwork—
(Seat and Tablet Arm of fine grained Hard Maple, also back-rest slats if desired)

No Sharp Edges—
(All corners perfectly rounded)

No Loose or Complicated Parts—
(Loose or adjustable parts only create disturbance in classrooms)

Optional Equipment—
(Drawers—bottom shelf—front, back or side panels—inkwell—wood back-rests—curved or straight front legs)

Neat Design and Appearance—
(Perfect joints and attractive finish)

Unsurpassed Rigidity—
(Positive double-riveted construction, good as new after years of use.)

GUARANTEED FOR 10 YEARS

ROYAL METAL MANUFACTURING CO.

"Metal Furniture Since '97"

1130 SO. MICHIGAN CHICAGO

Meet Seating Needs With "Standard"



No. 2563

JONES
The Standard Line
LOUISVILLE

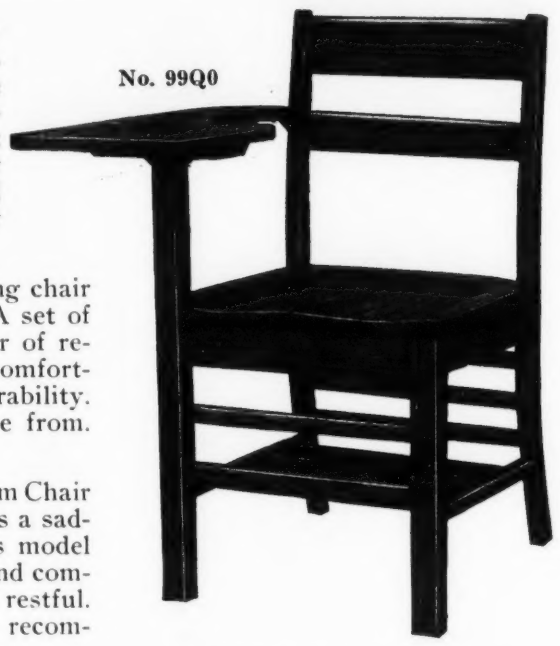
Standard chairs have been developed for school use. They are built to meet the needs to which they may be put in service in the school library or classroom. We have endeavored to use only the finest and most select grades of wood in our chairs and consequently we can offer you chairs that are sturdily and substantially built of quality materials by skilled workmen.

The No. 2563 Library Chair is a good looking chair made of plain oak with quarter-sawed back. A set of these chairs in your library will lend it an air of refinement. The saddled seat makes for more comfortable sitting and the strong back denotes durability. We have a great variety of models to choose from. One will surely match your surroundings.

To the right is the Correct Seating Tablet Arm Chair No. 99Q0. It is made of quarter-sawed oak, has a saddled seat and a rack beneath for books. This model has been especially designed to afford correct and comfortable seating. The curved back also makes it restful. The No. 99Q0 is extensively used and highly recommended by leading school officials.

Standard School Equipment Products include furniture for office and classroom—from Kindergarten to University — a complete line in which Quality and Service are outstanding.

No. 99Q0

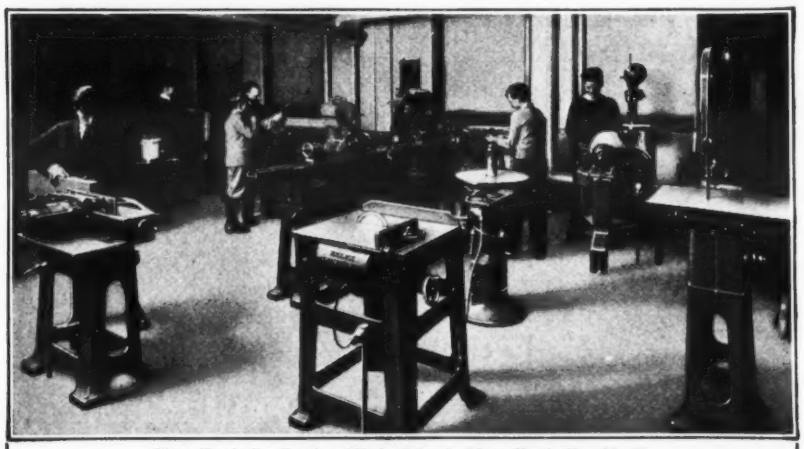


If you desire our catalog write now. It shows many new and improved patterns of our line.

STANDARD SCHOOL EQUIPMENT CO.

INCORPORATED

229 W. Breckenridge St., Louisville, Ky.



New Rochelle Junior High School, New Rochelle, N. Y.

The Standard of Safety in Woodworking Equipment for Schools

Practical school instruction benefits by the same exclusive features which have won universal acceptance for Wallace Portable Machines in business and industry. Thousands of them are used in universities, public and private schools.

FREE TRIAL. Send for catalog. We'll let you try any Wallace Machine, cost free, without obligation. If not convinced, send it back, charges **collect.** Get all the details of the trial offer. We'll put you on our mailing list for the Solar-Wallace Plan Service for Instructors, including illustrated job sheets that you can use as regular assignments. Write today.

J. D. WALLACE & COMPANY

152 S. California Ave., Chicago, Ill.

MANUAL TRAINING BENCH No. 280



A GLANCE AT THIS NEW PATTERN will show that the combination of various sized drawers and cupboard makes an unusually practical bench. Notice, especially, the small drawer which is intended to hold nails, screws, small tools, etc., which so easily become misplaced when kept with the larger tools. Being able to immediately lay hands on these small but necessary items, will be the means of saving a great deal of time, thereby promoting efficiency. Also, notice the large cupboard, which will hold such tools and materials which can not be kept in the general or three private drawers. Bench is equipped with our Abernathy Rapid Acting Roller Nut Vise No. 70D on front, adjustable stop and dog.

C. CHRISTIANSEN

Manufacturer of this line since 1898

2814-2842 West 26th St., Chicago, Ill.

Sturdy!



Here's a bronco he can't bust!

The STAKMORE Special *for* Schools

THE STAKMORE SPECIAL is the strongest, lowest cost folding chair on the market.

The construction of this chair is so simple that there are only two joints, two moving parts, six rivets, and **no screws!** It will outlive three ordinary folding chairs under school and educational conditions.

The STAKMORE SPECIAL comes in one finish only — varnish-on-wood. The seat and back are three-ply veneer.

Six of these chairs fold into 7½ inches!

ADDITIONAL STAKMORE CHAIRS RECOMMENDED FOR SCHOOLS.

BENTSTEEL

All-metal frame with wood or upholstered seat and back. Nothing to catch fingers or clothes. Simple in operation. Rubber slippers on the feet prevent scratching and make classrooms quiet. For those who want the best in an all-steel folding chair. The quality and price will interest you.

STANDARD

This bentwood chair has been the leader of the **Stakmores** for years. This is the all-round chair. Useful wherever a dignified, strong, comfortable folding chair is needed. Seasoned frame in fumed oak, mahogany, green, or gray. Upholstered seats.

THE upkeep of STAKMORE SPECIALS cost practically nothing. There are no screws to get loose.

These chairs can be stood on, piled up, and mistreated (as sometimes happens when red-blooded young Americans are using them) without damage.

The STAKMORE SPECIAL is recognized everywhere today as the world's standard low-cost folding chair. At the startling price reductions announced a few months ago, this chair is sweeping the country in popularity and sales.

Years of experience have taught us how to handle contracts for schools at lowest costs.

STAKMORE
Aristocrats of Folding Furniture

Write or wire for lowest prices or ask for our representative to call.

STAKMORE CO., INC.
200 Madison Avenue, New York.

Let us quote on your folding furniture needs and show you samples of STAKMORES.

STAKMORE
Aristocrats of Folding Furniture

SCHOOL FURNITURE

The Rowles line embodies every practical type of pupil's desk, opera chair, portable assembly chair, tablet arm chair, teacher's chair, kindergarten table, kindergarten chair and miscellaneous school furniture obtainable. If you do not have our latest catalog be sure to send for a copy.

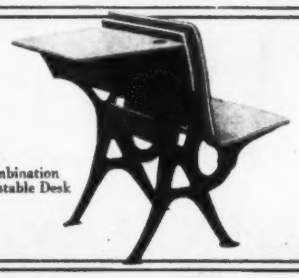
For more than thirty years the name of Rowles has been identified with good reliable school equipment. Every article we sell has been correctly designed, properly constructed and thoroughly tested so that the purchaser is assured of full value for every dollar invested. If your School Board contemplates buying new equipment it will be to their interest to obtain a quotation on our line either direct or through a local dealer or distributor.


No. 7724

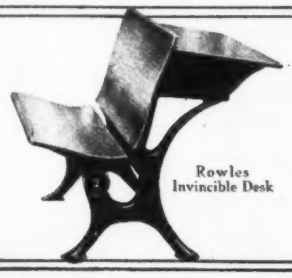

No. FF1243


Collegiate Chair Desk


No. 7722 T.A.


Combination Adjustable Desk


Everfast Pedestal Desk


Rowles Invincible Desk


Sanford Model X


No. 7730


No. 106X


Chicago Pedestal Desk

E.W.A. ROWLES CO.
2345-2351 South La Salle Street
CHICAGO ILLINOIS
Dealers—Write for Agency; some Good Territory still open

Vul-Cot—the national waste basket, *holds waste!* This light, strong receptacle does not let chalk dust or dirt sift through onto the floor. Its solid sides and bottom won't crack nor warp under the rough-and-tumble treatment it is sure to get in school service. Vul-Cot lasts indefinitely and is economical to begin with. Two sizes, many colors.

At Stationers and School Supply Houses

VUL-COT
- the national wastebasket



NATIONAL VULCANIZED FIBRE CO., Wilmington, Del., U. S. A.

NATIONAL
DUSTLESS CRAYONS

are truly Crayons of Character



Free of grit from tip to tip NATIONAL CRAYONS respond perfectly to every stroke.

Being uniform in strength, every piece of NATIONAL CRAYON will withstand a firm grip of the fingers without danger of breaking or crumbling.

The dustless feature, combined with uniformity in all other respects, makes NATIONAL the ideal crayon for the classroom.

Your regular school supply dealer can serve you. If not, write direct.

THE NATIONAL CRAYON CO.
West Chester Pa.



Standardize on Angle Steel — it PAYS!

PERMANENCE means as much to the man who is buying equipment for a school system as it does to the purchasing agent of a large manufacturing concern.

Both are buying and building for the future — both desiring the greatest return on the investment.

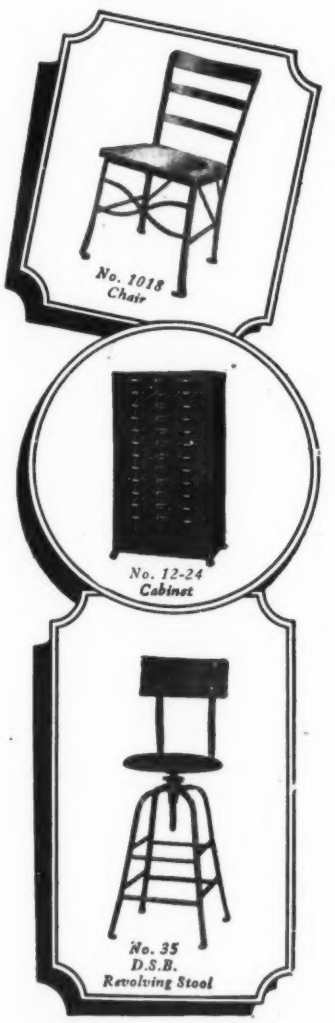
ANGLE STEEL EQUIPMENT is a permanent investment. It is built to endure. Constructed of heavy gauge steel, solidly hand riveted, and strongly braced. It will withstand any amount of severe treatment.

Correct posture equipment is as necessary in the modern school as it ever has been in the manufacturing plant. Here you are setting standards of what is correct and most efficient. All ANGLE STEEL desk and seating equipment is especially designed to permit both ease and convenience, which results in greater efficiency.

ANGLE STEEL EQUIPMENT is durable and uniformly finished, and succeeding installations match each other which results in a uniformly attractive appearance throughout the department.

Many school systems have found ANGLE STEEL EQUIPMENT exactly what they need. Whether you want stools, chairs, tables, benches, cabinets, desks or trucks we can meet your requirements.

Specify your needs today. Start at once to build for permanence. Your order or inquiry will receive instant attention. We also make special equipment from your blue prints.



ANGLE STEEL STOOL CO.

Main Office and Factory **Plainwell, Michigan**

BRANCHES:

Our Chicago branch carries a large stock of merchandise.

ANGLE STEEL STOOL CO., 98 Park Place, New York.
ANGLE STEEL STOOL CO. OF ILLINOIS, 325 West Madison St., Chicago.
ALL STEEL PRODUCTS CO., 333 State Street, Detroit.
PARENT METAL PRODUCTS CO., 134 North Fourth and Cherry Streets, Philadelphia.

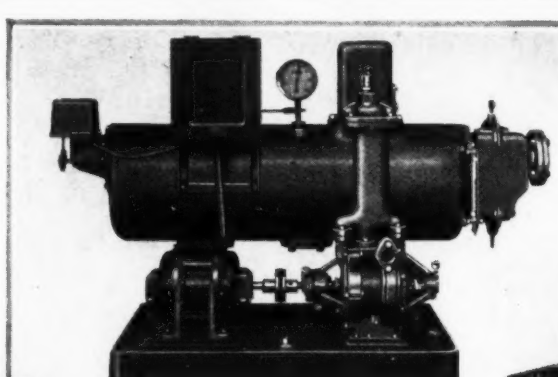
Agents and Dealers in Principal Cities.

Detroit, Chicago, St. Louis, Milwaukee, Pittsburgh, Cleveland, Philadelphia, Newark, New York, Rochester, Buffalo, Syracuse, etc.

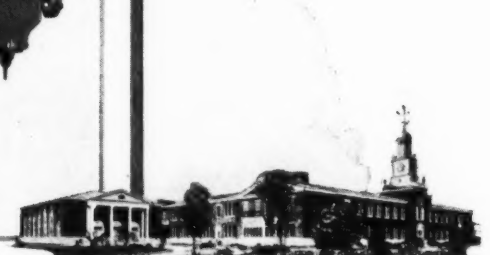
Are your schools heated as well as these?



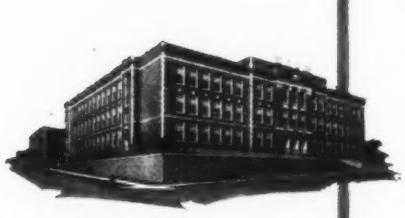
Alameda High School, Alameda, Cal. Mr. Carl Werner, architect, San Francisco, Cal.



Motor-driven Jennings Vacuum Heating Pump, for withdrawing condensate and air from the return lines of steam heating systems.



Junior High School No. 3, Trenton, N. J. Mr. Ernest Sibley, architect, Palisade, N. J.

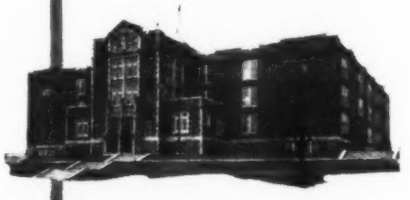


Alexander Hamilton Intermediate School, Seattle, Wash. Mr. F. A. Naramore, architect, Seattle, Wash.

GOOD heating is of first importance to schools. Plenty of heat for every radiator in zero weather. Not too much when the mercury rises. Always the proper amount of heat for classroom comfort.

Conditions that call for the flexibility and close control which the Jennings Vacuum Heating Pump provides. A few representative installations are illustrated.

If you are unfamiliar with Jennings heating pump equipment, complete information will be sent on request.



Public School No. 15, Paterson, N. J. Lee and Hewitt, engineers and architects, New York, N. Y.



Worcester Junior High School, Worcester, Mass. J. D. Leland & Co., architects and engineers, Boston, Mass.



East High School, Denver, Colo. Mr. Geo. H. Williamson, architect.

THE NASH ENGINEERING COMPANY
11 Wilson Road South Norwalk, Conn.

RETURN LINE AND AIR LINE VACUUM HEATING PUMPS — CONDENSATION PUMPS — COMPRESSORS AND VACUUM PUMPS FOR AIR AND GASES — STANDARD AND SUCTION CENTRIFUGAL PUMPS — HOUSE SERVICE PUMPS — SEWAGE EJECTORS — SUMP PUMPS — FLAT BOX PUMPS — MARINE PUMPS

Jennings Pumps

THE AMERICAN

School Board Journal

A Periodical of School Administration

Published on the first day of the month by

THE BRUCE PUBLISHING COMPANY

354 Milwaukee St., Milwaukee, Wis.

Frank Bruce, Publisher
John J. Krill, Business Manager
Frank O. Dunning, Jr., Eastern Manager

Eastern Advertising Office:
50 Church St.,
New York, N. Y.

Western Advertising Office:
53 W. Jackson Blvd.,
Chicago, Ill.

Volume 76 | May, 1928 | No. 5

TABLE OF CONTENTS

Cartoon: Residence Versus Merit 39
Harold Heaton
The Present Teacher Surplus 40
A. V. Lockhart
Some Outstanding Policies of the Board of Education at Wilson, Okla 40
George Jolley
Let the Cry for Men Be Articulate 41
Harlan C. Hines
Efficient Expenditure of School Moneys 43
Fred M. Hunter
Sick Leave for Teachers 44
Floyd T. Goodier
Landscape Development of School Grounds 45
M. Walter Pesman
A Louisiana Parish School Board 47
W. H. Perkins
Certification for Improving Professional Leadership 49
J. Cayce Morrison
The Superintendent and the Applicant 51
G. H. Marshall
Economic Factors Related to School-Population Growth 52
Fred Engelhardt and Newton H. Hegel
The Medford Continuous Census 54
Mrs. B. H. Bryant
The Purification of Water With Special Reference to Swimming Pools 55
Frank E. Hartman
The Abraham Lincoln Junior High School, Rockford, Ill 59
Frank A. Jensen
The Dobyns-Bennett High School, Kingsport, Tenn 60
Ross N. Robinson
The Scotch Plains High School 62
John Noble Pierson & Son
The James F. Hibberd School, Richmond, Ind 63
J. L. Hamilton and W. G. Bate
The Qualifications of Teachers 65
Ernest Bennett
The Working Schedule of the Superintendent of Schools 66
Index of School-Bond Prices 67
Harold F. Clark
The Functions of the School Superintendent in Theory and Practice 70
Cecil Leonard Hughes
Keeping School-Board Members Informed 72
M. C. White
A Letter From the Superintendent 74

EDITORIALS:
School Administration—Retrospective and Prospective 68
The Teacher Surplus and the Raising of Standards 68
Progress in Educational Convention Publicity 68
Do the Schools Receive the Best Architecture? 69
Some Tax Considerations and the Problem of School Support 69
Are Certified Checks an Essential in School Contract Bidding? 69
Are School Textbooks Well Made? 69

School Finance and Taxation 76
New Rules and Regulations 88
School Administration Notes 96
Building News of the Schools 106
News of the School Boards 110
Personal News of School Officials 118
Personal News of Superintendents 120
Law and Legislation 125
Washington Correspondence 134
A. C. Monahan
Chicago Correspondence 136
Book Reviews 157
Publications Received 162
The Wisconsin School-Board Convention. 175
After the Meeting 194
Buyers' News 194

Bruce's Attendance Bulletin

FOR MANY YEARS one of the features of an N. E. A. Superintendents' meeting has been *Bruce's Attendance Bulletin.* It contains the names of all those in attendance, classified and arranged in a manner to be used as a ready-reference work. While the preparation of this tremendous list of names involves time, labor, and expense, the project has been carried from year to year because there is a real demand for just such a service.

There are many uses to which these lists are put. They are mailed back home to those interested. The administrative factors secure some conception of the size of the convention and the noted men in attendance. Sometimes the mailing of the list takes the place of a letter or a post card.

The publication of this remarkable record of names offers, in point of personnel, some idea of the scope of the greatest educational gathering of the year. At no time is a larger number of eminent educators assembled at any one gathering, and it is probably safe so assume that no more important gathering is seen elsewhere on the globe.

Bruce's Attendance Bulletin is provided without cost to any one except ourselves. Our compensation comes in the appreciation that is manifested by the educators who use it. The hundreds of letters acknowledging the service which come to our desk give testimony to the fact that the bulletin has a useful purpose. It is our modest contribution to the world's most splendid educational gathering, staged in the interest of the rising generation of a great people, of a marvelous nation, and of the most powerful Republic on earth.

THE EDITOR.

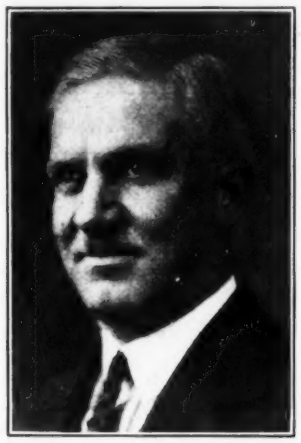
Copyright, 1928, by the Bruce Publishing Company. All rights reserved. Title registered as Trade Mark in the United States Patent Office. Entered as Second Class Mail Matter in the Post Office at Milwaukee under Act of Congress of March 3, 1879.

Subscriptions—In the United States and possessions, $3.00 per year. In Canada $3.50. In foreign countries $4.00. Single copies, not more than three months old, 35 cents; more than three months old, 50 cents. Sample copies, 35 cents. No orders accepted for volumes dating back more than five years. Back copies more than one year old, not available.

Discontinuance—Notice of discontinuance of subscriptions must reach the Publication office in Milwaukee, at least fifteen days before date of expiration. Notice of changes of address should invariably include the old as well as the new address. Complaints of nonreceipt of subscribers' copies cannot be honored unless made within fifteen days after date of issue.

Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

"Perfectly Satisfactory"



Harry J. Collier, Jr.
Business Manager,
Fort Wayne Public Schools
Fort Wayne, Ind.

Office of
BUSINESS MANAGER,
Fort Wayne Public Schools
H. J. COLLIER, JR., *Business Manager*
W. ARTHUR ROSEMEYER, *Assistant*

Fort Wayne, Indiana,
March 15, 1928

The Standard Electric Time Co.,
Columbus, Ohio

Gentlemen:

We have equipped six of our Buildings with your System including fire alarm and telephones and will say we are very well pleased with the system and service rendered, as it has proved perfectly satisfactory in all respects.

Very truly yours,

H. J. Collier Jr.
Business Manager.

THAT is the usual expression heard when referring to "Standard" Electric Time Systems.

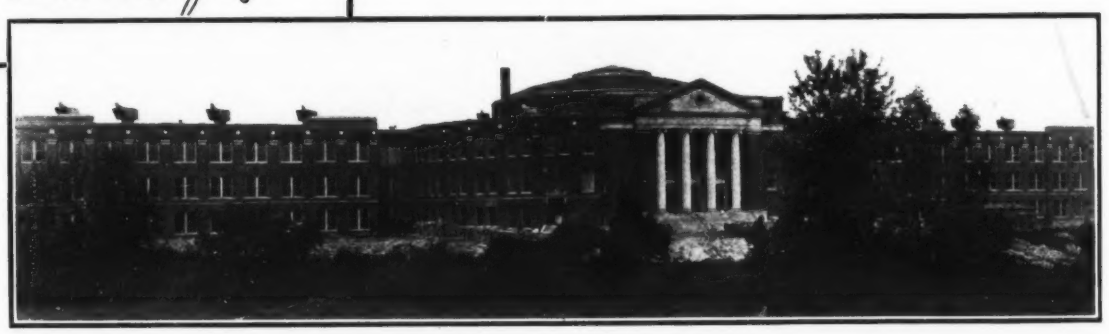
School officials appreciate the tremendous help a "perfectly satisfactory" time service is to the modern school. Also it saves them lots of worry and trouble.

Business Manager Collier, Jr. of Fort Wayne, Ind. shows his satisfaction by word and picture. "Perfectly satisfactory." "Standard" Time Service helped make that genial smile.

Join the "perfectly satisfactory" class of "Standard" users and put "Standard Electric Time" Equipment in your next building.

Let us furnish you with specifications or estimates on equipment for your new or old buildings.

Write Home Office or nearest branch.



New North Side
High School
Fort Wayne, Ind.

The Standard Electric Time Company

Springfield, Mass.

Branches

1428 Munsey Bldg., Baltimore
625 S. 18th St., Birmingham
10 High Street, Boston
901 Mutual Life Bldg., Buffalo
217 Latta Arcade, Charlotte, N. C.
1510 Monadnock Bldg., Chicago
1333 Union Trust Bldg., Cleveland
83 South High Street, Columbus
716 Mercantile Bank Bldg., Dallas
562 Penn Street, Denver
Mutual Bldg., Kansas City, Mo.
1244 Innes Ave., Los Angeles
745 McKnight Bldg., Minneapolis
726 St. Felix St., Montreal, Can.
50 Church Street, New York City
1612 Market St., Philadelphia
Bessemer Bldg., Pittsburgh, Pa.
229 Pine Street, Portland, Ore.
690 Market Street, San Francisco
148 Adams Avenue, Scranton
918 Western Ave., Seattle, Wash.
110 S. Cedar Street, Spokane, Wash.
806 Donovan Bldg., Detroit Mich.

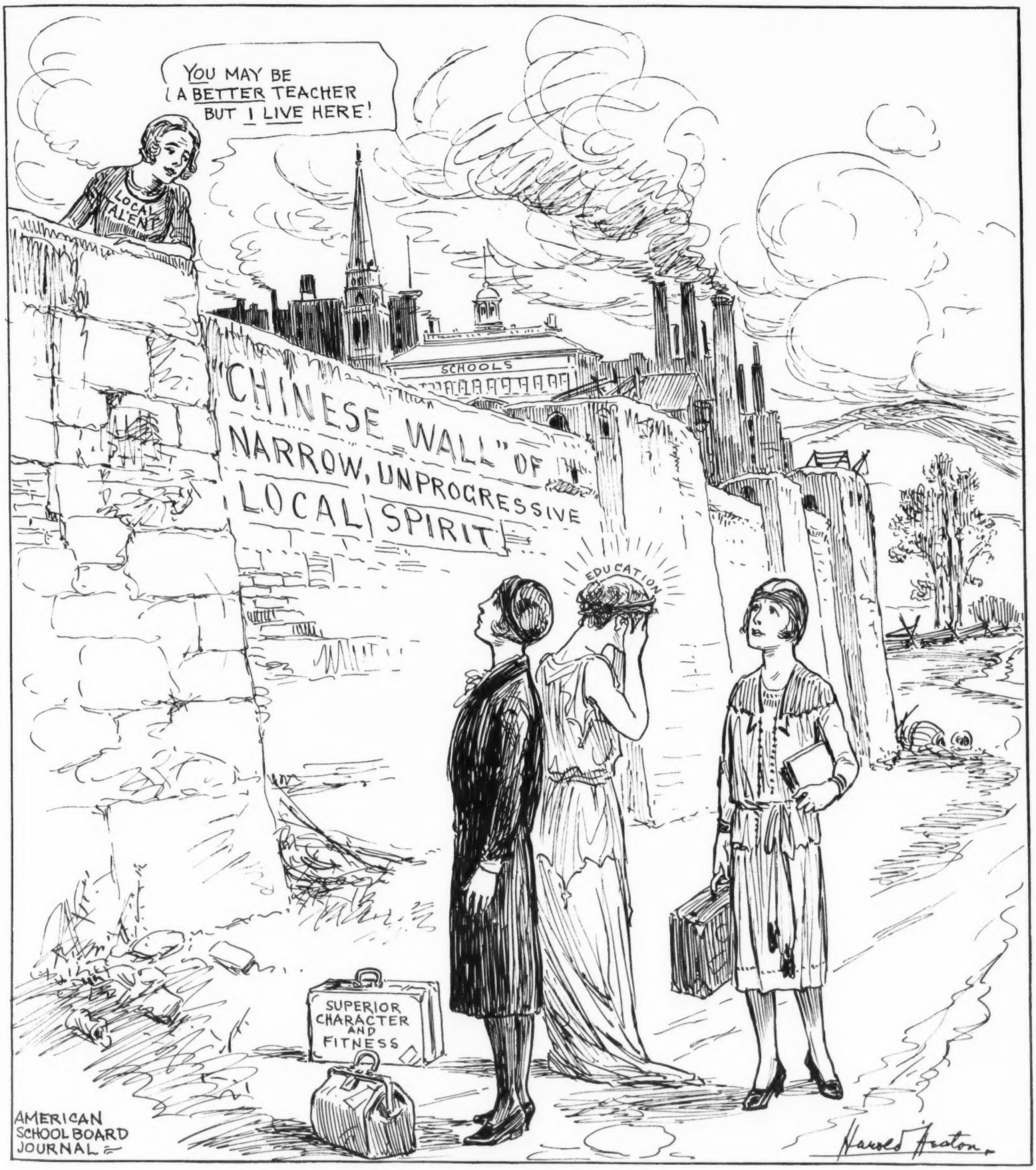
"MAKES EVERY MINUTE COUNT"

THE AMERICAN

School Board Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume LXXVI, No. 5 | MAY, 1928 | Subscriptions, $3.00 the Year



Residence Versus Merit.

The Present Teacher Surplus

Supt. A. V. Lockhart, Calumet, Ill.

During and immediately following the world war the lack of a sufficient number of qualified teachers was acutely apparent. Women were not called upon here for home military service as was the case in European countries. Yet the lure of the larger wages paid by commercial interests proved irresistible for many, and consequently boards of education found it extremely difficult to keep their schools functioning. In many instances there was a decided lowering of standards. In fact, several hundred smaller schools the country over, particularly in rural sections, were forced to close because teachers were not to be had.

Postwar readjustments set in later here than overseas. For many months after the armistice was signed, business and industrial conditions in America were such as to offer great attractions to talented men and women who might otherwise have wanted teaching as a lifework. But aside from the low salaries generally offered teachers, their unsatisfactory social status in many communities served as a repellant to many who longed for the apparently greater freedom in industrial and commercial pursuits.

Reasons for the Surplus

The present swingback to a large surplus of teachers has been in part due to a return to more normal peace times. Further, we have the phenomenon, unparalleled in any other country, of a vast influx of students into our colleges and universities. Opportunities in the outside world of business and commerce do not loom so alluringly as they did a decade ago. With modern publicity methods, schools of education are attracting thousands to their courses. Though teachers' salaries are still too low, they have gradually advanced to new high levels. In fact, a beginner in teaching can generally obtain a larger income his first year or two than could be secured with the same limited experience in almost any other field.

New York City and Chicago are turning out more teachers from their teacher-training institutions than there are vacancies. In other cities similar conditions exist. All sorts of schemes of sabbatical leave and cadet teaching are proposed in order to meet this situation, but the problem remains to vex. State and county superintendents likewise report large surpluses of unemployed teachers. County Superintendent Tobin of Cook county, Ill., frankly advises girls to consider other lines of work as there are not enough classroom positions to go around.

An Opportunity Not to be Missed

The interesting aspect of the present situation lies in the unique opportunity afforded school officials to raise teaching standards. The nation's teaching staff numbers 800,000. Our certification standards are in many communities and states deplorably low. It would be difficult to estimate the forward stride that could be made in the schools if every one of the 800,000 classroom teachers were adequately trained and expert in teaching technic. If such were the case, a century of progress would come, inevitably, within one or two decades. As it is, the vast majority of our teachers are woefully lacking in fundamental training and outlooks. Moreover, approximately 100,000 recruits have to be absorbed each year, and these entail a severe strain on the schools employing them until they can be adjusted to their work.

Some of the more favored and wealthy communities have set high standards for their teachers and insist on having only well trained and experienced teachers. In large numbers of communities, however, there seems to be prevalent the idea that almost anybody can manage a schoolroom. School boards fail to see that it takes more than a certificate, a diploma, or a degree to make a good teacher. There is grave danger, too, that such boards will see in the present surplus of teachers an opportunity to keep salaries low or even reduce them to lower levels. In economics, Gresham has stated that bad money will surely drive out good money. This has been amply illustrated by the collapse of various European currencies. There are indications that the surplus of teachers may have a depressing effect on the quality of teachers and even in salary schedules.

Higher Salaries

Naturally high salaries should only be paid to teachers worthy of them. The requirements for certification in most states should be raised. This would protect and encourage teachers who are anxious for adequate training and close the door to thousands of those who would use teaching as a mere stop-gap to matrimony and other pursuits. Salary schedules based on training and experience should become more universal. At present, the beginner receives too much and the teacher of proven merit too little. Until conditions generally are improved there will be little to encourage the professionally minded teacher, except in the more favored sections, to augment her professional capital by summer schools and travel.

Finally, it should be clear that there is not now or probably will never be a surplus of the kind of teachers our American boys and girls richly deserve as their normal right. I refer to those teachers who have chosen teaching because they love growing boys and girls; to those who realize their responsibility to their country well enough to secure the finest training obtainable for their chosen work in teaching; to those who can see beyond the textbook and the course of study the larger problems of unfolding personality; to those who willingly work without ceasing to achieve the best objectives of education. All of us have seen this type of teacher as well as the timeserver.

Surely boards of education ought to insist on the better type of teacher. The present time is decidedly auspicious for improving the level of teaching everywhere if school officers will select only the well trained and capable teacher. Such a policy may cost slightly more in salaries but additional expenditures in this direction will be eminently justified by eliminating or reducing to a minimum instruction costs due to inefficient teaching.

Some Outstanding Policies of the Board of Education at Wilson, Oklahoma

George Jolley, Member of the Board of Education, Wilson, Okla.

As a member of the board of education of the Wilson school district, I desire to set forth briefly some of the outstanding policies which I believe have been instrumental in making this an outstanding district in the public-school system of the state.

First, the proper apportionment of duties in the district school program has had the attention of the board. From past experience in the district, it was found that the superintendent must have certain clear-cut duties and responsibilities, and that the board must hold him responsible to them just as he must hold his corps of teachers responsible for certain duties. The board has realized that it must not interfere with the things which it has made the superintendent responsible for; but that it must check the superintendent to see that he puts the board's program into effect.

The Selection of Teachers

In the matter of employing teachers, the problem of selection has been left to the superintendent. That is the duty of the superintendent, and he alone is to recommend such teachers as he thinks will fit into his plans for the forthcoming year. It would be just as foolish for a community mass meeting to try to select the teachers in a district as for the board to undertake this task. Therefore, it is the policy of this board to leave that problem to the superintendent, and I believe it to be a wise one. Not that these recommendations are not considered and discussed by the board; they are, and in some few cases, the recommendation has not received the sanction of the board; however, these cases are rare, as the board in any district should consider the qualification to select teachers in a superintendent before it employs him.

Administration of the Schools

The matter of detailed administration of the schools has been left to the superintendent. The board desires, however, that it be kept informed at all times of plans and needs in the school, so they may be able to act intelligently and quickly when the need arises in the school. In other words, cooperation is the keynote of success in any public-school system. First, cooperation between the board and the teaching force; next, cooperation between the teaching force and the student body; and last, but not least, cooperation between the school and the parents.

The superintendent, coming in contact with the public, acts as a point of contact for both teachers and parents. The teaching force, working through the school program, puts over the wants of the parents as interpreted by the superintendent; while the parents working through the parent-teacher association, inform themselves of the school problems and act as an organized body to help in the solution of these problems.

In the selection of teachers, which is the real barometer of success or failure of a school system, the board in this district has set certain qualifications based both on their scholastic training and experience. We also have a salary schedule which is based on the qualifications of the teacher. This has raised the standard of the corps of teachers much above the average for cities of its size. And where the teaching corps is such that it can be depended upon at all times, the future of the school is not in doubt. Another item in the high standard of the teachers is the requirement that they have a certain amount of experience. That may seem hard to the individual teacher, but the idea has worked to the advantage of the school system.

Again, the standard of excellence of the teachers is being raised by an extension course of study secured from Columbia University. The board has obtained the services of Dr. H. B. Bruner, who is conducting this phase of the schoolwork.

On the whole, we are very proud of our schools. No cost nor effort is being spared to raise the standard of the schools. We have cooperation of the best sort, and although no school board can please all the people all of the time, we are willing to take some criticism if the schools maintain the pace they have set.

Let the Cry For Men be Articulate

Harlan C. Hines, Professor of Education, University of Cincinnati

Anybody who has given the matter serious thought, especially if he be a member of a board of education, knows that the profession of teaching is just now sorely in need of the highest type of men, but how to get them is a moot question. Many suggestions are being advanced. As an example, let me quote from a newspaper editorial of recent date:

Naturally if the young men attending college and university were aware that the teaching profession is a sure-go profession of the first rank, there would be no lack of men teachers. Young men are made of that stuff which answers an honest challenge to manly qualities. There are hundreds of men upon the campuses of the upper schools who are fired by a great desire to serve humanity. They would serve it stupendously. . . .

Show the young men now crowding the colleges that one out of every two teaching positions is a man's job and that man is needed mightily. Lead them to see that, as in the building of a bridge or in the undertaking of some great engineering feat, here is a task requiring cool judgment, their courage, and their brawn. Let it become plain to them that here is a big business, the right conduct of which affords unlimited play for man's peculiar initiative. Let the cry for men be articulate.

I do not know that such an appeal has ever been made. If so, and if successful, no publicity has been given to the results. Several years ago *Phi Delta Kappa*, a fraternity for graduate students who show exceptional promise in the field of teaching, sent out questionaries to all of its members, requesting information and opinion as to what could be done to interest more young men in the profession. There was general agreement only in two lines of action. Emissaries should be sent to the high schools to talk with young men about the opportunities in teaching, and undergraduate college students, who have shown some interest in teaching as a lifework, should be invited to social meetings of the fraternity. During the past few years both of these plans have been tried with little success. The young man graduated from high school is unfortunately so frequently unfavorably impressed by the type of man who goes into teaching that the best of appeals falls on deaf ears; while the undergraduate in the college tends to choose his lifework more upon the basis of monetary rewards than upon a desire to be of great service.

Not everywhere, however, is this so basically true. At such institutions as the universities in California, the State University of Iowa, and the state normal schools of Indiana and Iowa, for example, many young men "fired with a great desire to serve humanity" do enroll for consecutive training courses for the profession of teaching, while at Columbia, Harvard, Chicago, Northwestern, and some of the state universities such as Michigan, Ohio, Wisconsin, New York, Minnesota, and Washington, hundreds, most of whom have already begun their work as teachers, register for the summer courses.

"But the type of man we want is not coming," said the dean of one of these colleges. "He is going in for engineering, where the field is already overcrowded, or for dentistry or law, while the majority of young men our institution graduates are headed for business. We must depend pretty largely for our material upon the shallow, washed-out, effeminate type of youngster, too physically weak to stand the strain of other occupations and too mentally slow to know what is going on about him in the world of affairs. Where men are needed in teaching we are compelled to send out such youths, and it is no wonder that we cannot create a market for our products."

Obviously, if the shallow, washed-out, effeminate youngster is not wanted in teaching, there is no logical way to keep him out so long as he meets the requirements of the law. There is an urgent demand for men, even though they be men only in style of dress. But what takes even these into teaching? That question is partly answered when we consider only the operations of the law of chance; but lack of stamina for other occupations is also partly responsible. And there is a third reason—teaching affords an immediate and regular income for the beginner. From the early days men have gone into teaching for that reason, and many now in high position in America began as school-teachers, using the profession as a stepping-stone to something they considered vastly better. And this condition still persists. There is something about the profession, difficult to point out, that seems to make some of the strong men want to get out.

Men Are Leaving Teaching Rapidly

Perhaps also some of the weak ones are leaving. I do not presume to know where a weak school-teacher goes when he leaves off teaching. If Bernard Shaw was right, there is no skilled occupation open to him. Anyhow, it has been predicted that within the narrow span of 25 years there will be no men in the profession. Figures that show a gradual decrease in the percentage of men and a correspondingly gradual increase in the percentage of women teachers support this forecast. While the cities of New York, Washington, Philadelphia, Boston, Cleveland, Detroit, St. Louis, Chicago, and Kansas City still boast about 40 per cent of men teachers in their high schools, the elementary schools cause this figure to drop much lower, so that in the schools of such cities as Cincinnati, for example, but 17 per cent of all the teachers are men, with the prospect of the figure becoming much lower.

The colleges have not fared so badly. While a greater and greater number of women teachers is being employed by the higher institutions (partly because men cannot be found and partly because women are fitting themselves for such occupations), 79 per cent of teachers in collegiate departments and 98 per cent in professional schools are men.

Evidently, the salary situation has much to do with the general exodus. Under present conditions (the best in the history of education) if a young man invests $5,000 or $6,000 in academic and professional preparation for public-school teaching, he is able to obtain a position that pays an initial wage, on the average, of but about $1,500 annually. With automatic increases of $100 each year, within the course of 20 years, if he succeeds in keeping his position and if he rates the regular increases, he will command a yearly salary of $3,500. Beginning at the age of 21, the age of 41 will find him not "out in the clear" but running neck and neck with failure. For he will have married and reared a family and, in a city large enough to pay him the scale of wages mentioned, the ordinary demands of living will have been so great that they not only will have aged him much too rapidly and made impossible further training for a changing occupation, but will have lessened whatever power he may have had as an instructor.

There is here no exaggeration. A man with a family, whose occupation is that of teacher in a modern city high school, is not merely a human being with whom we may commiserate, he is one with Stephen and Savonarola. And there is little he can do for himself except to work at other occupations at odd hours and free moments. In one of our great cities a few weeks ago the men high-school teachers offered concerted objection to a new salary schedule that benefited them little, if any. In reply, they were given until the following Monday to write letters of approbation, showing that they were satisfied and happy over the new schedule, unless, of course, they did not wish reappointment for next year. A few sought work elsewhere, many found that they must carry on, while the remainder have yet to learn what it was all about.

But the salary question, like the poor, the profession has had with it always. While it has not been a matter for serious consideration in the higher institutions, in them the emphasis has not been placed upon the amount that should be *paid* for services rendered, but upon the amount that could be *raised* for salary purposes from public funds or endowment. In them, too, the initial wage always has been more reasonable, so that, although the college professor is not subjected to fitful and magnanimous increases, he usually has been able to break even with his creditors before time for retirement. He, more than the public-school teacher, has maintained a professional outlook and has grown more philosophical because of it.

Teaching is a Migratory Occupation

In public-school teaching as in the ministry, unless the young man is employed in his home town, he seldom "settles down" to spend the remainder of his life in a certain community, for he hardly gets his trunks unpacked before some reason for moving on presents itself. Unsatisfactory assignment, dislike for superiors, petty jealousies, and politics all play their rôle.

Unlike the lawyer or the doctor, who selects the community in which he desires to practice and goes in with the idea of permanent residence, the young-man teacher, seeking an open job on the usual one-year contract and one that will pay him the most, has little choice of city, town, or district and none of school in which he is to work. In fact, he may not know until the doors swing open in the fall what school can use his services or what he is to teach. It is not strange, then, that he finds his assignment highly unsatisfactory. The city, in itself, may offer no allurements, while a fine, sensitive nature may become warped through placement in unrefined surroundings. A young man reared in a cultural atmosphere hardly could be expected to be encouraged to stay on if assigned a teaching position in the slums. Nor does one who lacks the advantage of culture and refinement grow and prosper among those not of his training.

Then, too, the teacher is seldom employed by the officer to whom he is directly responsible. The principal of the school frequently has no voice in the selection of those over whom he is to exercise control. This makes for little loyalty on the part of either, and the chances are very great that positive dislikes will not only spring up but little annoyances grow into chronic grievances. In such a situation either the principal or the teacher may be held to blame, but the burden there really belongs upon the system.

Competition is not so apparent in teaching as in some of the other professions. Yet, it is there, teachers competing with each other to see who can teach the best. This is good so far as the pupils are concerned but, in teaching, as in all activities, where competition exists, jealousies will be found also. And when teachers become jealous of each other things begin to pop. One sure way for a young man to arouse the antagonism of his fellow teachers is to teach so well that he gains a large student following, and becomes popular. Popularity in

teaching, unless one is able to win over his fellow teachers by the strength of his personality, is a sure sign that he is on his way out, if not out of the profession, at least out of the community.

And, if he doesn't get out by other means, politics may help him. In teaching, as in no other profession, strictly speaking, he serves the public in aggregate rather than individually, and his work, his income, even his personal business, are in no sense his private affairs. With the public, if not actually interested in his welfare, at least snooping around to find out what he is doing to earn the munificent salary paid him, he may expect sooner or later to trip over some of the barbed-wire entanglements laid by the politicians. For the public schools are shot through with politics. The city of Chicago is our most outstanding and perennial example.

For these reasons, and others minor in character, teaching has been classified as a migratory occupation. And, because it has been allowed to become a migratory occupation, the young-man teacher so infrequently becomes firmly fixed in the community that, in finding it necessary to move on, he moves out of the profession.

A Too-Limited Social Life

By that I do not wish to infer that no teachers stay put. I am speaking here of the young man in teaching. Most of the women teachers are employed by the community in which they have always made their residence and, if they stay with teaching, it is either because they do not marry or find in teaching a satisfactory way not only to be of service to the public but to those who are dependent upon them for support.

The young man, however, if he is described as "made of that stuff which answers an honest challenge to manly qualities," begins to cast about for some social life that will serve as a recreational outlet. Perhaps he likes to dance, play cards, or engage in any of the outside activities enjoyed while a student in college. If so, he must either learn to forego these pleasures or avoid the small town, even the small community within the large city; for, with all the personal freedom characteristic of modern town and city life, this young man is still a teacher and he is not to share in it. For is not a teacher supposed to set a proper example for the young, especially since the parents are so bent upon dodging that duty?

And what is there to tie to, in the matter of his professional associates? There is little in common among them socially. All of them, it seems, if not washed-out, have been through the pedagogical laundry and the chances are that they have shrunk some. All good fellows in their way, but highly unsatisfactory as running mates for a he-man from the wide-open spaces of the modern classical college.

Let him turn to those of his ilk, these young men and young women of the social set of the city or town. *They* will appreciate his brand of humor; *they* will see in him a two-sided individual who can teach or leave it alone! Contrary to that which might be expected, they greet him cheerfully, hospitably. We all have a way of taking in with open arms a promising stranger, for we have no way of knowing that his father wore a red flannel undershirt and ate with his knife. All is well until some high-hat local swain pipes up with the question, "Are you engaged in business in the city?" But the answer is too much. A teacher, and a high-school teacher at that! They are not openly unkind, but it is his only excursion into the Elysian fields of local society. Hereafter he will probably spend his evening at the Y.M.C.A., playing checkers with the Grace Church minister's assistant.

The psychological effect is that after a while the young man is ashamed to tell anybody that he is a teacher. He shuns being classified with the other men teachers of the local high school. And there is no hope of reforming *them*—too steeped in and entangled by the machinations of the public system of schools. Rather than let the washing-out process get him, too, he goes away from there.



DR. THOMAS W. GOSLING,
Superintendent of Schools-Elect,
Akron, Ohio.

(See Page 120)

Public Servants Not Humorists

I have been told that it takes a sense of humor to stay with "the teaching game." Perhaps. I have known a good many teachers who have developed one; but they do it in spite of teaching and not because of it. Teaching is a serious undertaking. One of my former students found that out in his first year of regular experience. Being young, not yet out of college, in fact, but little older than the students in his classroom, he had much sympathy with the students' viewpoint and, feeling that school must be pretty trying for them at best, he did not hesitate to interject a humorous story occasionally to liven things up a bit. There was some good psychology in it, for, after a good laugh, students always come back to the point at issue with much greater interest. But his students were too noisy about it, it seems. For, after a few days of teaching, the superintendent called him into his office and, in somber tones, cautioned him against making the children laugh. "Young man," he said, in reply to the teacher's defense, "when you've taught school as long as I have, you'll realize that levity has no place in the classroom."

I am sorry that I know of no public-school teacher who has a great reputation both for the ability to teach and a fine sense of humor. But I have known many college professors who have made life much more worth the living because they were masters of the art of introducing ridiculous, unexpected, and incongruous situations into an otherwise tedious and somewhat drab discussion.

Now, men like these are seldom, if ever, raised to important administrative positions outside of the fields in which they have specialized, and it is not because they could not serve in such capacities with credit, but, rather, that the public will not permit its chief servants to be funny. When one of them tries it, out he goes. While this was being written the board of education of the city of Chicago was sitting in judgment, trying to determine how it would go about ousting its superintendent of schools. The charges were explicit but I doubt that they told the whole story. Indirectly the superintendent had made some enemies because of his irrepressible sense of humor, "too funny" for the seemingly serious politicians who want to help run the schools.

No, the young man with a highly developed sense of humor will have little opportunity to exercise it in teaching if he wants to keep his humor or wants to get to the top in the group. Before he can do the latter, he is likely to lose it anyhow. That accounts for the bitterness sometimes found under the surface in college instructors. With them the washing-out process has given way to a drying-up and far too often, this means not only a weakening of intellectual grasp but a loss of enthusiasm for teaching, without which the instructor's words of wisdom are as sounding brass and tinkling cymbals.

Woman's Viewpoint Insufficient

But, after all, why does the profession of teaching need *men?* Cannot the women keep the schools going? Let me quote again from an editorial on this subject:

"The teaching profession must have men. It should be plain that a citizenship taught altogether by women can not be anything but a miserable failure in many of its phases, even as civilizations trained and educated almost entirely by men teachers have consequently and conspicuously fallen.

"Both men and women teachers are necessary, equally, unitedly. This is a question that should need little argument. Boys and girls—the men and women of the near future—should have direct contact with masculine courage and masculine ability to grasp a situation of world-encircling proportions, as well as with feminine conscientiousness, feminine thoroughness, and feminine sympathy."

It does not necessarily, as has been said, take a man to raise a man, but a boy in the schools needs masculine influence, advice, and teaching, and the cry is not so loud for more men as for real men, men of character who, with the right professional outlook, will be willing to devote the better part of their lives to leading and guiding the oncoming school generations into a much broader and more wholesome conception of the world into which they will go than that afforded the children just now under instruction.

To get such young men it is necessary to turn to the undergraduate liberal-arts colleges; the professional teacher-training colleges are not supplying enough of the type needed. And where, in these colleges, will the he-men be found? Strange as it may seem, they are in that much-maligned and ill-caricatured home of social advantage, the fraternity house. Whatever may be said of the college fraternity, it certainly does gather in most of the strong men of the campus.

Let us go among these strong men of the colleges, as suggested in the editorial, and urge them to come into teaching as a lifework. Unless they are exceedingly gifted and have been promoted rapidly, they were not born yesterday. "Teach school?" they will answer. "Listen, brother, I've been going to school all my life and whenever I do get through I'm through. Besides, who wants to be a rubber-collared pedagogue? I've seen few of them I'd want to emulate. I'm going into something where I can pull down some 'jack' and still know I'm living. Not for me!"

And *that,* with some slight variations, is just why they do not go into teaching. They do not always mention the financial return, although that is uppermost in the minds of many. But they are quick to remember the men teachers they have had and they do not want to be like them.

The Layman's Opinion of Teachers

The fact is, however, that money could be used to make these young men forget their early teachers, as it is being used in New York and California. It is certain that no young man is going in, as he might go into the diplo-

(Continued on Page 165)

Efficient Expenditure of School Moneys[1]

Fred M. Hunter, Chancellor-Elect, University of Denver

School systems are frequently administered more in the interest of the reputation of superintendents, teachers, business managers, and architects, and to the profit of private businesses and contractors than in the interest of children. Sometimes school money is wasted, school programs are handicapped, and the support of education is endangered by loose and thoughtless or personal and selfish, policies of control by boards of education and executives. One purpose of school administration and business management is defensible—and one only—namely, the best provision for the teaching of children which the money provided by the state and community will buy when handled by a scientific and professional (disinterested) plan of administration. Good teaching for all types and classes of children, not professional reputation nor money profits, is the goal of school administration.

Six Causes of Waste

Some of the chief causes of waste in the administration of public-school systems are:

1. *Too large proportion of the school budget spent for overhead (general control) purposes and too small proportion for instruction purposes.* In the school year, 1925-26, 10 cities of 35 with a population of 100,000 or greater had an overhead of 4 per cent or greater upon the total for current expenses; while three of these showed an overhead of 5 per cent or greater. Six cities with a population of 100,000 and up gave less than 75 per cent of total current costs for regular day-school instruction.[2]

Whenever the overhead or general-control cost exceeds 3 per cent, the superintendent should carefully seek the reason. Danger lies ahead. Whenever the percentage of expenditures for instruction in regular day schools falls below 75 per cent of the total current costs, the superintendent should know and be able to defend the causes for it.

2. *Failure to control distribution and assignment of teaching service.* Often too many teachers are assigned to indefensibly small classes and to nonteaching duties, such as: "teacher in charge," departmental heads who do not teach, "counselors," and office administrators. I am entering no protest against the proper use of this type of service. On the other hand, I am an ardent advocate of adequate provision for "counseling," supervision by principals and department heads in high schools, and control and direction of extracurricular activities. But I personally know a superintendent of schools in a city of 150,000 population, who in a single year saved 75 teaching positions (or $150,000) in the schools under his charge without doing injustice to a single teacher by an indefensibly heavy pupil or "pupil-period" assignment. He merely inaugurated a "check-up" system on small classes and nonteaching positions.

3. *Rapid expansion of the fields of school service without efficient preparatory organization or justification in actual needs of children or community.* Pressure from groups outside the school system frequently results in unwarranted additional expenditures for purposes in themselves desirable, but relatively and in the light of the main aims of the school program not justifiable; for example, cafeteria service, or kindergartens in very new districts, or a junior-college establishment without knowledge of the cost or preparation to meet it. Also, from within the system come heavy pressures for additional expert or specialized services which



may distinctly aid in the performance of some very necessary and desirable function, but which cannot be defended by showing vital necessity. I have known large school systems to carry a veritable army of clerks and accountants to maintain a minute and highly specialized system of cost accounting, most of the tabulations and statistical tables being finally wholly unused except in the publication of elaborate statistical reports. Expert supervisors and directors of specialized subjects are frequently added by the same process—without justification in terms of the school program.

Private Gain at Public Cost

4. *Exploitation for profit by business firms.* Business and financial interests of a city are always concerned with school patronage. Their main purpose is to conduct their respective businesses for a profit. This is natural and laudable. Sometimes, however, they intrigue to influence school expenditures unduly and to control school moneys. This invariably results in waste and extravagance, and the children of the schools "pay the bill."

As an example, let me cite a case: In city A, a treasurer makes use of a doubtful and conflicting statement of a section of school law to refuse to transfer for loan purposes balances always present in the capital funds of the school district. Such transfer is wholly legal and would prevent the registry of salary warrants during the tax collection period before sufficient tax money is on hand for payment. The school district pays interest on these warrants at the rate of 6 per cent, in the total amount of some $20,000 each year. Meanwhile, the capital funds of the school district are loaned by the treasurer to financial firms of the community at the rate of 2 per cent. The schools and the children "pay the bill" for this exploitation.

In city B, school furniture is purchased from any one of a group of firms in a combine to control bids for school equipment. The price of the standard school desk is almost double that paid for exactly the same desk in a city a few hundred miles distant. Again the children "pay the bill."

In the school districts of county C, which has a large rural population, each board of school trustees makes its own purchases of supplies for the year. The prices paid for standard school supplies are practically double those paid by a nearby city which purchases the same supplies, identical in quality and standard, through a centralized and expert purchasing department.

5. *Extravagance in school buildings.* This usually arises from the following causes:

a) Control of building policies by persons financially interested in the patronage afforded by the school-building program. This is frequently accomplished by raising the issue that the school superintendent is not a business man and incompetent to control the erection of schools. The result is control either by a separate department of city government, by a lay committee of the board of education, or by a layman business manager independent of the superintendent of schools. In most cases, nonprofessional control means that interested persons with expert knowledge and ability actually direct the procedures of building erection for the profit of themselves and their allied business firms. Their purpose is never the maximum advantage to the teaching of children. Millions of dollars of school money are wasted each year by favoritism in specifications, architects' fees, and "extras" given as bonuses to contractors.

b) Unstandardized and poorly planned buildings and equipment. When the superintendent is in control, he himself is to blame if buildings are erected according to wasteful and extravagant policies. Many such instances can be brought in evidence. Too frequently buildings are erected for display purposes, both as to outside appearance and interior arrangement. Elaborate allotments of floor space prevail and unnecessary equipment is provided.

Why the Inequality?

I venture to cite the following in evidence: Three American cities of 200,000 to 300,000 population inaugurated programs for the erection of new school buildings during the years from 1920 to 1928:

City A voted $6,000,000 and housed 8,000 pupils. Average cost per pupil, $750.

City B voted $8,000,000 and housed 15,000 pupils. Average cost per pupil, $533.

City C voted $10,000,000 and housed 30,000 pupils. Average cost per pupil, $333.

Each city had similar housing needs and erected buildings of permanent fire-resistant construction.

6. *The provision of positions in the school system for personal and political favorites.* In every American city, pressure of varying degree is brought upon the school administration to recommend the appointment of teachers, and especially of members of the noncertificated staff, upon a personal and political basis. When anything but merit of record, personal fitness, and a high standard of previous preparation dictates appointments to positions, school money is either ineffectively spent or wholly wasted.

General Principles for Efficient Expenditure of School Moneys

School moneys are efficiently and economically expended when the result is a maximum of advantage in the direction of the best teaching for all the children of the community. Such maximum of advantage requires the recognition of the following principles of school administration:

a) *Single-headed control.* The administrative policies and the expenditures of all funds, both current and capital, must be controlled by a board of education (or supreme school authority) through an expert executive head who is responsible for the formulation and recommendation of the general program for the development and management of the schools, and for the administration of the same.

b) *Coordination.* Administrative organization should be departmentalized with a responsible and authorized expert executive at the head of each principal field of activity, the work of all of those being coordinated in a unified working whole by means of an executive cabinet or council of which the superintendent is the presiding officer. Full understanding of fields of activity and assignments of duty is thus obtained, and the passing of responsibility from one executive head to another avoided.

c) *Merit system for appointments.* Merit in the terms of personal fitness, previous record, and adequate preparation is the only qualification for a member of the school staff. This applies to all classifications—teachers, supervisors, and executives, including an expert business man as manager of the business functions of the schools and an expert builder as leader-in-chief of the building program.

---

[1]Read at the Meeting of Department of Superintendence, National Education Association, Boston, Massachusetts, February 28, 1928.

[2]Report of Bureau of Education Statistical Circular No. 7, March 1927.

d) Checking System. A thoroughly organized system of checking up on administrative assignments and responsibilities and an efficient plan of measuring results should prevail in every school system. To do this in a scientific manner, an adequate research department is required. (This type of inspection should be thought of as applying to administrative functions only; never to the functions of teaching and supervision of instruction.)

e) Schedule for teaching positions. The distribution of teaching and other positions in accordance with a schedule for size of classes, for allotment of clerical service, for the assignment of teacher time to executive work, such as control of extracurricular activities, headship of high-school departments, mental testing, counseling, etc., is highly essential if extravagance and abuses are to be prevented. Such a schedule should be developed scientifically and cooperatively.

Accounting for Administrative Purposes

f) Cost accounting. The system of cost accounting and auditing should cover all activities of the schools, including those involving moneys usually known as auxiliary funds, which are handled in the name of the public schools, and should furnish summarized and easily interpreted information at frequent, stated intervals, showing the condition of the appropriations, the costs of units of school organization and specialized functions, and comparisons with recognized standards and norms as well as with practices in other properly comparable communities.

g) Standardized buildings. All school buildings should be erected and equipped only in accordance with a carefully and scientifically developed plan standardizing: (1) the facilities to be provided in the several types of schools; (2) the equipment to be provided for each type of school and room; (3) the instructions to bidders upon the erection of school buildings; (4) the contracts with all architects.

These standards should constitute an adopted regulation of the board of education and should be in a published form accompanied by sets of standard drawings for all building facilities and all built-in equipment.

h) Standardized supplies. All supplies should be purchased upon competitive bids by a centralized expert head and should be distributed by a standardized requisition system providing an allotment upon a per-pupil basis for the semester or year. A central storeroom is the best agency for administering such a system, enabling purchases to be made in quantity and effecting a considerable saving thereby.

i) Manufacture of equipment. Much of the equipment of the school system may be more economically manufactured than purchased, either by the building department of the schools or by the instructional shops in vocational education. This is especially true of large quantities of school printing.

j) Requisition system. A plan for the control of open market emergency ordering by means of a current requisition system is a very necessary part of the machinery of the superintendent's office. A small requisition committee, directly representing the superintendent's office, with a representative of the business and purchasing department as a member, is probably most efficient for this purpose.

Economy Pays all Concerned

The foregoing summarization of the chief causes of waste in city-school administration and the tentative statement of principles governing school expenditures should not be construed to mean that waste and extravagance are dominant in most school systems, nor that too much money is being spent for school purposes in our several commonwealths and municipalities. What has been said is rather directed as a suggestion to superintendents to be more on their guard in removing vulnerable points in the defense of their policies—to the end that more effective school service and more kinds of school service may be given for the money expended. Moreover, the better the account given by superintendents for school appropriations voted them, and the more nearly full value of a hundred cents on the dollar is rendered for each dollar of school costs, the greater the appropriations for the school program are likely to be.

The American peop'e are thoroughly devoted to the cause of public education. Whenever issue is joined in a battle of ballots over school matters, the schools and the children inevitably win, provided the responsible executives show to the e'ectorate full and complete evidence of efficient and economic trusteeship of school funds, and the necessity for victory for the school cause, as separate and apart from other issues.

A people with a fortune of three hundred billions of dollars and an annual income of a hundred billion dollars is willing to spend two billion dollars per year in education. Yes, and more, if that people is assured that the two billion is effectively invested.



ROY R. ROUDEBUSH,
French Lick, Ind.
Recently appointed Assistant State Superintendent of Public Instruction.

(See Page 120)

Sick Leave for Teachers

Supt. Floyd T. Goodier, Chicago Heights, Ill.

Every board of education is faced with the problem of the absence of teachers. It is to be expected that teachers wi'l find it necessary to be absent from time to time. While the most common cause of this absence is illness, there are business and social obligations, more or less legitimate, for which teachers ask to be excused from their regular duties.

When boards of education seek to formulate ru'es governing absence of teachers, and especially when they attempt to decide upon the pay for sick leave, they find several factors which enter into the problem.

Of course, they wish to deal fairly with their employees. But their responsibility does not end here. The interests of the pupils must be considered. The children of a room suffer when the regular teacher is absent. The substitute teacher can hardly be expected to conduct work at its usual efficiency.

Again, the board is responsible to the community for the wise use of all school funds. No rules shou'd be adopted which will put a premium upon dishonesty. Rather, ought the rules to encourage fair dealing by all teachers and so far as possible make it difficult for an unscrupulous teacher to receive any salary to which she is not legally and morally entitled.

Teachers are human. When a board passes a rule permitting a certain number of days a year for sick leave with full pay, there is abundant evidence to show that some teachers will take advantage of the rule and be "absent for illness" when they are not ill.

Dr. George C. Carrothers, in a study of the physical efficiency of teachers, writes concerning certain teachers of Cleveland, Ohio: "Teachers with business or other personal obligations to meet, sometimes call the school and report illness, then attend to their personal affairs." He quotes a letter from a woman taxpayer of Cleveland as fol'ows: "I know personally of three teachers who have never been sick one day, but who take ten days' sick leave every year."

In September, 1920, the board of education of District 170, Cook county, Illinois, appointed a special committee to draft rules relative to the pay of teachers who were obliged to be absent from their regular duties. After considerable investigation of the methods used in other districts, the committee presented the following report, which was unanimously adopted by the board:

1. Teachers who are absent from duty for reasons other than their own illness shall lose full pay.

2. When a teacher is absent from duty on account of her own illness, she shall lose one half pay for the first ten consecutive days. From the eleventh to the sixtieth day, inclusive, she shall receive full pay. For any absence beyond sixty consecutive days, the teacher shall receive no pay.

There were several considerations which influenced the committee in formulating the above rules:

1. Funds were not available to make any compensation to the teacher who lost time because of any reason except her own illness. For example, the committee would have liked to make an exception in the case of teachers who were absent to attend the funeral of members of their immediate family, had the financial condition of the district permitted.

2. Rather than grant an annual sick leave of a certain number of days, the committee sought a rule that would not encourage illness on the part of the teachers, but would at the same time render desirable financial assistance to any teacher who was so unfortunate as to suffer a prolonged illness.

The ten days of illness on half pay practically precludes an absence for illness that is not legitimate. A long illness frequently involves expenses for hospital and nursing services as well as physician. For teachers who have this heavy expense, the full pay for ten weeks is a real godsend.

3. Each illness of a teacher is treated independently. The rule is applied from the first day of each absence period, without any regard to how much previous absence the teacher may have had during the current school year.

For seven years the rule has been in effect, long enough to draw certain conclusions regarding its value:

1. The teachers seem satisfied with the scheme. There has been no suggestion on their part that the rule be changed.

2. There has been almost no attempt by teachers to take advantage of the rule. In one

(Concluded on Page 169)



THE BYERS JUNIOR HIGH SCHOOL, DENVER. A BEAUTIFUL BUILDING IN AN APPROPRIATE SETTING.
The horizontal lines of the structure are emphasized by repetition in the retaining wall and hedges.

Landscape Development of School Grounds

II. Information on Cost

M. Walter Pesman

How about the cost of landscaping school grounds? The final decision usually depends upon this vital question. Too often exact figures are not available. Where accurate cost data are to be had, they are frequently mixed in with other accounts and can be used in such a manner as to prove a preconceived attitude, either for or against landscape development. In the tables below we have tried to be fair and accurate. The figures were compiled directly from the accounting department of the Denver city schools.

It is most important that a clear distinction be made at the outset between *initial cost* and the *cost of maintenance.* Returning annually as it does the latter is decidedly the more important of the two. A school system can well afford to be liberal in the initial outlay if it means an annual saving in upkeep. We must, of course, remember that the interest on capital outlay in itself represents an annual cost, which must be kept in mind while deciding on devices for saving labor or material. As an example, we might quote the installation of a sprinkler system with stationary sprinkler heads, turned on or off in series so as to provide a systematic, efficient irrigation by merely the turning of a valve or two. In arid regions where systematic irrigation is a prerequisite for any success in landscape development, this amounts to a large saving in labor.

The initial cost of landscape development should be thought of in terms of a percentage as compared with the total cost of building. This percentage is surprisingly small, even if the more expensive items such as cement walks and driveways are included, as they are in the following table.

For private homes and estates from five to ten per cent of the building cost is often set aside for landscaping. No such percentage is ever found among our school-ground developments.

TABLE I. Cost of a Few Landscaping Jobs Taken From the List of Denver Schools

School	Cost of Building	Cost of Grounds Development	Per Cent
Elementary—			
Barnum	$ 101,575.59	$ 3,712.88	3.66
Fairmont	160,569.30	3,157.01	2.0
Ebert	185,802.14	3,923.39	2.1
Edison	207,015.86	3,448.60	1.7
Junior High—			
Cole Junior High	672,231.66	7,845.33	1.2
Byers Junior High	402,758.83	12,758.83	3.2
Skinner Junior High.	450,035.85	4,442.34	1.0
High Schools—			
East High	1,160,709.86	26,557.15	2.3
South High	919,853.64	24,429.26 (Not completed)	2.66

A study of the items which make up this cost of ground development is most enlightening. It shows that, on the comparative basis of initial cost, the difference between a well-laid-out school ground and one without a living plant on it, is remarkably small. In other words, the big items of the above figures are such things as grading, walks, drives, surfacing—expenses which are generally conceded to be essential to the proper use of the school plant. This is clearly shown in the following table in which various items are segregated.

These figures give us a fair idea as to the distribution of the sums expended on the development of school grounds. While in the case of junior or senior high school, the individual factor of a particular school may make it unwise to make general deductions on the basis of these figures, we feel that a résumé of average cost of our modern elementary schools can be arrived at with a fair degree of accuracy. This average cost would hold for an elementary school, drawing pupils from a radius of one-half mile and taking care of an average of 785 pupils, such a school being placed on a block of ground approximating four and one-quarter acres of ground with a more or less level surface.

TABLE III. Distribution of Estimated Cost of School Ground Improvement for an Average Elementary School

1.	Grading and cleaning of grounds	$1,100
2.	Driveways and walks	800
3.	Surfacing playground	250
4.	Lawn	225
5.	Planting	900
6.	Safety factor depending on each individual case	225
	Total estimate	$3,500

To best explain item No. 6, the safety factor, we can give an illustration of some of our recent elementary schools. In the case of the Ebert school, the acquired ground was cluttered up with a number of dwellings which had to be razed and the basements filled with soil. This greatly increased the first item. Another school

TABLE II

School	Grading and Clearing of Grounds	Driveways and Walks	Surfacing Playground	Lawn Work	Planting	Miscellaneous
Ebert	$ 1,745.60	$ 747.29	$236.54	$ 182.31	$1,011.65	
Fairmont	1,020.24	792.68	176.00	270.42	901.93	
Edison	603.47	1,745.04	333.04	125.00	588.18	$ 53.87
Cole Junior High	1,175.80	4,017.73	13.96	650.00	1,465.41	522.43 (Tennis Courts)
East High	10,368.56	8,820.04	500.00 (Estimate)	1,052.33	2,603.73	2,328.63 (Irrigation System) $883.89 (Tennis Courts)

was outside of a sidewalk district, necessitating an exceptionally large outlay on item No. 2. The Valverde school, situated on a conspicuous hill, required an additional expenditure on both grading and lawn. Occasionally it is found necessary either to transplant or else remove a number of large trees found on the site of a proposed playground. Such factors, however, are confined to special cases.

If we add together the cost of lawn work and of planting and compare this total with the total cost of building, we see how very small a percentage represents the difference between a bare building and an attractive homelike school, which is a credit to the school board and a civic improvement to the city.

TABLE IV

School	Cost of Building	Cost of Landscaping	Per Cent
Ebert	$ 185,802.14	$1,193.96	0.64
Fairmont	160,569.30	1,172.35	0.73
Edison	207,015.86	713.18	0.34
Cole Junior High	672,231.66	2,115.41	0.31
East High	1,160,709.86	3,656.06	0.32

As will be noticed, the cost of landscaping in no case comes up to one per cent of total cost and is sometimes less than one third of one per cent.

An item which had best be considered separately from these general classes of expense is that of irrigating systems. This is of special importance in arid regions, but may well be given consideration wherever occasional artificial irrigation is desirable.

Four years ago we made our first experiment with an underground sprinkling system, consisting of permanent sprinkler heads set flush with the lawn, connected at regular distances in such a way as to make it possible to water a large section of lawn by merely turning on a single valve. This does away with all hose connections and changes a costly, laborious item of expense into an efficient, almost automatic matter of routine.

The result has been highly satisfactory. While the initial cost of installation is comparatively high, this is counterbalanced in a few years by the saving in maintenance expense and water bills.

The cost has ranged from $103.78 for a simple installation in the parking between curb and sidewalk to $4,475.49 where a very large area around our South High School was provided with this system. It varies with the number of sprinkler heads, which, in turn, depends upon the water pressure. It is difficult to arrive at a unit figure on the basis of area for this reason. Again, local conditions of water supply and ease of connecting up are factors tending to variability in cost. Our cost per sprinkler head, taking it over all the installations completed by this time, is in the neighborhood of $6.25 per head. This covers cost of pipe and sprinklers, mechanics' labor and supervision—in a word, the total installation.

Maintenance

The cost of maintenance may properly be considered under two subheadings: (*a*) That part of the custodians' time expended on the daily care of trees, lawn, shrubs, and playground; (*b*) the cost of expert assistance given him in the maintenance.

In the Denver school system the custodian is responsible for the regular daily care of the grounds. He attends to irrigation, mowing, and general cleaning up and does such additional work as his time permits. All other activities are taken care of by the department of school grounds, the management of which is similar to the department of carpentry, plumbing, electricity, painting, etc., all of which are under the business manager.

The former item, naturally, varies considerably, depending on the amount of lawn and landscaping at each particular school. Each custodian keeps a record of the time his men spend on this work. The largest amount for the year 1927 was $475, turned in by a new high school where new lawns on sandy soil required a great deal of daily attention. At most junior and senior high schools the head custodian finds it most advantageous to assign a special man or boy to these outdoor activities during the growing season.

Special items of maintenance naturally divide themselves in two groups: (1) Playground work such as blading, surfacing, and care of tennis courts; and (2) landscape work such as trimming, spraying, fertilizing, cultivating, seasonal planting.

In the first group we were able to economize considerably by the purchase of a one-man tractor grader. During the spring, summer, and fall this blade is in almost constant daily use. It keeps the weeds down, it levels the ground, it maintains proper drainage and, to a certain extent, gathers up rubbish that accumulates or comes to the surface. Even during some of the winter months it serves as a great economizer by spreading sand or gravel on the playgrounds. From actual experience we find that the one-man blade can spread a yard in one eighth the time it would take a man by the wheelbarrow method. When properly unloaded, a yard of sand (average cost $1.25) can be spread in about thirteen minutes and will cover about 800 square feet. On larger areas the cost is materially cut.

Such items as trimming, spraying, fertilizing, and cultivating, are difficult to estimate in dollars and cents. Much depends on the thoroughness and frequency of the work. Once a school system is in good maintenance, it takes probably not over a dollar per tree annually to keep them sprayed and trimmed. On the other hand, after a bad insect pest or disease has taken possession, it will require repeated sprayings to overcome it. In a large school district with a great number of trees, a school-owned power-spraying machine is advisable.

An item of expense that must be carefully kept within bounds is the annual replacement of flowers. In the first place, most annuals are at their best during a period when school is not in session. They need as much care as perennial plants and, unless grown in a school greenhouse, cost almost as much. It is for these reasons we prefer to sacrifice some brilliant summer effect for the sake of economy and to depend mostly on trees, shrubs, and perennials for school-ground adornment.

A partial exception we make for spring flowering bulbs which continue to bloom for about four years, once planted and left in the ground and which give a splurge of color at the very time when the children are most interested in outdoor things.

It is the question of maintenance which finally decides how far a school district can afford to go in its school-ground development.

In conclusion, a few points must be stressed on which will depend whether such maintenance is likely to be excessive or not.

1. Plant hardy trees, shrubs, and perennials which will take care of themselves with the minimum of care.

2. Confine the lawn to such places where it will do the most good for general effect and where it is within easy reach of sprinklers, hose, or whatever system of moistening is employed.

3. Systematize all labor of maintenance so as to accomplish the most with the least effort and cost.

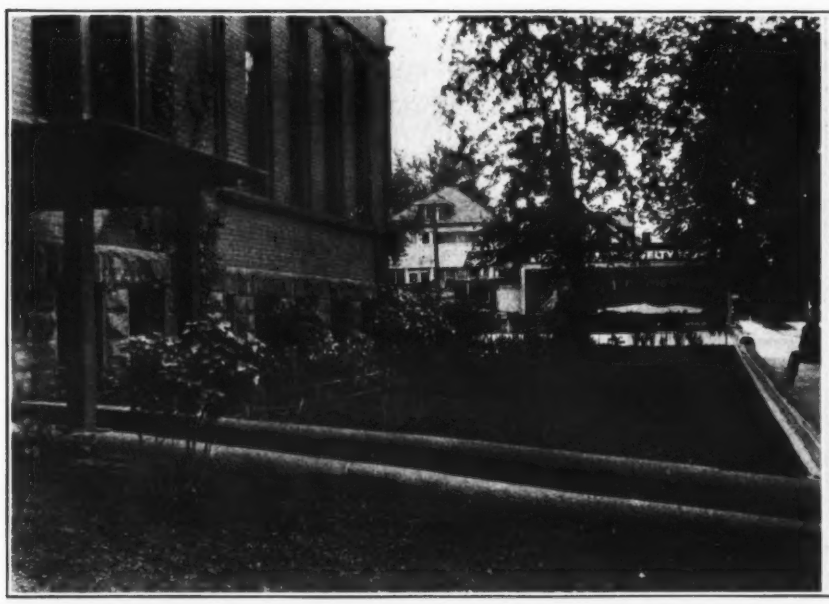
4. Provide all possible labor-saving devices, even at the expense of initial outlay. A school system can afford to take the long view on such things which would be impossible to a short-lived concern.

5. Avoid novelties, temporary effects, personal idiosyncrasies, neighborhood favoritism, short-lived trees and plants, excessive ornamentation.

With the proper attention to these fundamentals we believe that this movement of school-ground improvement will show itself to be based on a solid foundation.

The time of the little red schoolhouse has passed. We follow up-to-date methods of instruction and discipline; our whole attitude toward child life has changed. Still too often,

(Concluded on Page 169)



A FEW SHRUBS AND A BIT OF LAWN WILL GREATLY IMPROVE EVEN AN OLD BUILDING PLACED IN UNTOWARD SURROUNDINGS. CORONA ELEMENTARY SCHOOL, DENVER, COLO.



A SERVICE YARD WILL CONTRIBUTE TO THE BEAUTY OF A SCHOOL IF IT IS PROPERLY TREATED. THE SOUTH HIGH SCHOOL, DENVER, COLO.

A Louisiana Parish School Board

W. H. Perkins, Baton Rouge, La.

The various parish (county) school boards of the state of Louisiana are in all probability similar in organization and in operation. I am confident that the East Baton Rouge parish school board, of which I have been a member for six years, and which I have had the honor of serving in the capacity of president since January, 1923, is typical of those in other parts of the state. The individual differences found in the various school systems are due, no doubt, to varying local conditions that are found in other parishes.

The East Baton Rouge parish school board is composed of sixteen members elected by the people from the various wards of the parish for a period of six years. Wards one and two, which comprise the city of Baton Rouge, have seven members, and the remaining eight wards of the parish are represented by nine members. The membership of the board is overlapping. The term of office for one third of the board expires every two years. This provision of law makes for stability, enabling the board to adopt constructive programs which require several years for successful execution without apprehension of having the adopted projects discarded before completion.

In addition to this factor, which makes for continuity of policies, our school system is disassociated from politics as far as it is possible. Positions on the board are not sought by those politically minded, but as a civic duty our members serve the school interests of the parish at a personal loss to their own business interests. This is evinced by the fact that the majority of the members of our board have served for two or more terms. Two of our members have served for 16 years, one member for 20 years, and another for 25 years. Only two of the present membership have been serving less than four years. This again, makes it possible to accomplish positive constructive work, as the school problems can be attacked and solved in a businesslike, professional manner, rather than in a political way.

The operation of a school system is a major business. We consider it as such and have attempted to organize and to operate our schools along the lines which have been tried and found successful by big business interests. The business world has adopted the principle of centralization of authority and responsibility as well as large units of administration. Likewise, our school system, except for the erection of new buildings, is organized on the parish-wide basis, with no local advisory boards nor local committees.

Board and Superintendent

Our board elects from its membership a president and a vice-president for a term of six years. The president appoints from the membership of the board an executive committee of three, he being one of the three, which serves during his term and which disposes of ordinary matters that arise during the recess of the board. The regular sessions of the board are held quarterly; special sessions are held only in cases of emergency.

As in the case of a business corporation, the board determines the broad policies of administration to be followed. It serves as an advisory body, employing a paid executive to work out details pertaining to the operation of the school system and demanding that the operation shall be efficient and satisfactory. Board members must of necessity devote the major portion of their time and energies to their private business interests. They are not trained in school affairs; they cannot devote sufficient time to schoolwork to become thoroughly familiar with all the details; their knowledge must of necessity be more or less limited. Realizing this, and further realizing the necessity of making a success of the operation of the school system, for which they are responsible to the public, they must employ a thoroughly competent, professionally trained man to do this work for them. Our school board, as do others of the state, selects for a period of four years, in accordance with the provisions of law, an executive officer who is called superintendent, secretary-treasurer of the school board.



W. H. PERKINS,
President of East Baton Rouge Parish School Board, Baton Rouge, La.

Plan of Organization

I think it may be stated, without fear of contradiction, that the success or failure of the school system may be largely attributed to the type of executive placed in the superintendent's office. It is highly essential that the right type of individual be selected for this position, and we realize that the selection of this individual is one of our most, if not our most important function. After the superintendent has been selected, and after the general policies of the board have been determined upon, the superintendent is given practically a free hand in executing the policies of the board and in operating the schools.

This is the policy that successful business houses have found to be most satisfactory. The board, as a body or as individuals, is always willing to advise with the superintendent and to cooperate with him. The members uphold his actions so long as they conform to the general policies adopted by the board, or so long as his actions are sound, fair, and just. If the actions of the superintendent are unwise, unjust, or unreasonable, he is cautioned privately before having his decisions reversed. Publicity of such matters would make the public feel that the superintendent does not have the confidence of his board, thereby greatly impairing or altogether destroying his usefulness.

The East Baton Rouge parish school board believes in centralization of authority and responsibility, and it is along these lines that our school system has been organized and is operated. The superintendent is not only secretary to the board; he is a member of all committees, for he must keep thoroughly informed as to all of the activities of the board and must be able to furnish the board or its committees with detailed information and advice whenever called upon. The board must of necessity give its superintendent broad discretionary powers if he is to be held responsible for the successful operation of the schools.

The superintendent is allowed to select the personnel of his office force without question. He selects his supervisory force, principals, and teachers. This is essential, as these employees of the school board must work in harmony with its chief executive if the service they render is to be effective. Unless the superintendent can have an absolutely free hand in the selection of his assistants and his teaching force, he cannot be held responsible for the success or failure of the schools.

Practically all of the business of the board with reference to its employees is transacted by the superintendent, and unless a matter is out of the ordinary, board members do not come into official contact with employees. As the superintendent is constantly in the field, coming in personal contact with the various employees of the board as well as with the public, and is in frequent consultation with the individual members of the board, and as he discusses informally with the board members all problems that arise, he is in a position to know how to act without the necessity of calling the board in special session to dispose of trivial matters.

However, all matters of any importance are brought before the board for final disposition. By familiarizing the board beforehand with all matters to be brought to their attention, the time that the board is in regular quarterly session has been reduced from a period of five or six hours to a maximum of an hour and a half. As the members are thoroughly cognizant of all of the details before the meeting hour, it is only necessary to dispose of the matters that are presented by the superintendent in his official capacity or by members of the board, such actions usually being limited to determining general policies or to ratifying acts of the superintendent.

The superintendent studies the various problems pertaining to the school system as they arise. He must be able to recognize those things that are of vital interest to the board, to organize this information in a concise, logical way, and to present these facts to the board in an intelligent manner. As an example, several years ago the matter of the insurance of the school buildings of the parish was brought to the superintendent's attention with the purpose of effecting a saving in the insurance premiums paid by the board. Two plans presented themselves. One of the propositions called for competitive bidding; the other made it necessary to secure expert advice from the state fire-prevention bureau. Upon the recommendation of the superintendent, the latter plan was adopted. A survey of the schools of the parish was made and suggested changes in construction were attended to.

This plan brought a substantial saving to the board in the amount of premiums paid out, and still allowed the board to double the amounts of insurance carried upon its properties and to apportion its business equitably among the various local insurance agents. The board members could not have taken the time to give the study and attention necessary to investigate properly the merits of the two propositions, as these members are of necessity forced to attend to their own business affairs. Unless the superintendent had had the assurance that his recommendations would bear weight with the board, he would not have felt it wise to devote his time and energies to a matter of this kind.

Consolidation of Schools

I am pleased to state that consolidation in our parish has been carried out as far as is practicable. We have no one-teacher schools; only one two-teacher school; and in only two cases are teachers required to teach as many as three grades. Before consolidation was effected, it was the duty of the superintendent

to study the school system as a whole in order to make specific recommendations. These recommendations were not presented to the board for final disposition until after the patrons of the various communities affected had been convinced of the wisdom of this procedure. In this way, the problem of consolidation was solved with a minimum amount of friction.

As the superintendent is the executive officer of the board, and as he is the one who issues checks for the payment of all accounts, the public holds him personally responsible for the way in which the finances of the school board are managed. He not only knows what funds are available but he sees to it that the expenditures of the board are kept within the amounts budgeted. Various school-board members cannot be expected to know the needs of the parish as a whole. As the superintendent is constantly in touch with all of the various schools of the parish, he is allowed to determine what minor expenditures should be made for repairs and equipment in the respective schools. In matters requiring large expenditures of money, contracts are awarded, after advertising for bids, in accordance with the provisions of law. No employee of the board, other than the superintendent, is allowed to make purchases or to incur debts in the name of the school board.

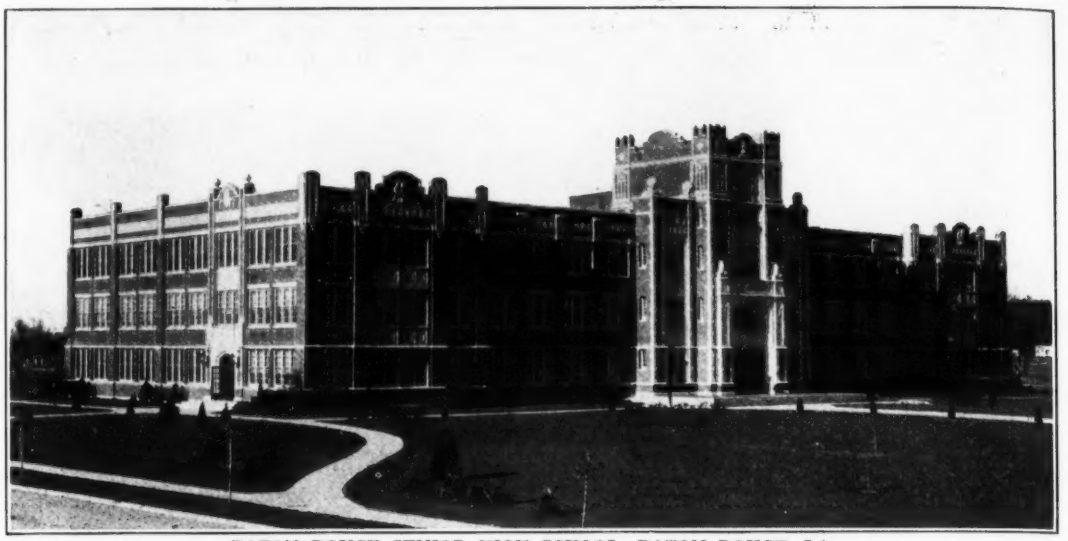
Another important duty of the superintendent is that of assisting the finance committee in the preliminary preparation of the yearly budget, as he is responsible to the board and to the public for the expenditures. The finance committee relies upon the recommendations of the superintendent as to the amounts to be received from various sources and the amounts necessary for the various items of expenditure. The superintendent must be conservative in his recommended estimated receipts and liberal in his recommended estimated expenditures. This budget is prepared by the finance committee and is presented to the board as a whole for its adoption, amendment, or rejection.

Problem of Population Growth

One of the major problems confronting our board during the past twelve or fifteen years has been that of providing adequate school facilities for the constantly increasing school population. The value of the school property in 1915 was $232,715; the value of school property in 1928 is $2,653,247. The wise expenditure of this amount of public money required careful planning upon the part of the school authorities. A study of the drift of school population was made, the assessed valuation of the property in the recommended building district was ascertained, and the size of the plant, the number of necessary classrooms and other needed space was estimated.

After the needs of a community were ascertained in a general way, the school board called into consultation a competent school architect who gave the board a preliminary plan for the building and its probable cost. This estimated cost, together with the estimated cost of the equipment and the school site, determined approximately the entire cost of the project. The board and the superintendent kept the public informed as to the progress that was being made in working out the plans for providing the necessary school facilities; taxpayers and citizens of the school district were called into conference and after the citizens of the district were thoroughly familiar with all the details, the school board called an election to vote the necessary funds for the project, the election being either for a building tax or for a bond issue. In those districts where the assessed valuation was high and the needs were not sufficiently acute to demand immediate construction, building taxes were voted. In other districts bond issues were voted.

After an election in any district, the board appointed a building committee, composed of



BATON ROUGE SENIOR HIGH SCHOOL, BATON ROUGE, LA.

members of the board and citizens of the community. These building committees have always been given broad discretionary powers. All actions of such committees, however, are reviewed by the school board. The members of these various building committees have given unstintedly of their time and effort. They have always striven to secure the best building obtainable at the lowest possible unit cost. I believe that the taxpayers of East Baton Rouge parish have received as good buildings for as little money as have the taxpayers of any other parish in the state. Our policy has always been, not how much we could spend upon a building, but how little we could spend and still secure a well constructed, properly planned, artistically designed school plant. I am pleased to state that during the entire recent history of East Baton Rouge parish no school-tax election has been defeated.

Supervision Provided

In 1914-15 a home-demonstration agent and a junior-club agent were employed to work with the rural-school children of the parish. In 1920 a department of health was added, with a parish school nurse. These employees of the school board work out of the superintendent's office and are directly responsible to him.

In 1919, two elementary supervisors were employed, one for the city schools and one for the rural schools. These two supervisors devote practically their entire time to the matter of the improvement of instruction. The board believes that the expenditure of public money for supervision of instruction has been more than justified by the improvement in the work being done by the teachers of the various schools. We believe that it is not only our duty to see that adequate school facilities are provided, that properly trained teachers are employed to instruct the children, but that it is also our duty to see that the teachers are rendering the most effective service in the matter of instruction.

It is the duty of the school board, as custodians of public property, to see that it is kept in a state of good repair. In order to maintain our buildings in as nearly a perfect state of repair as possible, at the least possible cost, the board employs mechanics who are paid by the month and who are sent from school to school to effect the repairs recommended by the superintendent. Several thousands of dollars are saved annually by this procedure.

As a matter of economical policy, a central supply room, or storeroom, is maintained in the basement of one of the schools in the city. Here, the principals of the various schools call for their supplies at stated times. A record is kept of the supplies distributed to each school, and thus we are able to know the individual cost of education for each school in the system.

Informing the Public

The public has a right to know how its schools are run. It has a right to know how much money the board receives, the amounts spent, and how it is spent. It has a right to know what it costs to educate a child and how this cost compares with the cost of education in other parishes of the state. It has a right to know what progress is being made in the schools. The school board attempts to keep the public fully apprised of all activities pertaining to the school system by giving to the public press of the city the written reports of the parish superintendent, furnished at each of the quarterly meetings. In addition to this, each school in the parish maintains in the Friday edition of the local paper news items written by the pupils, giving the activities which are of interest to the public.

You will note from what I have tried to say that our school system is organized with the

(Concluded on Page 138)



RURAL CONSOLIDATED HIGH SCHOOL AT BAKER, EAST BATON ROUGE PARISH, BATON ROUGE, LA.

Certification for Improving Professional Leadership

J. Cayce Morrison, University of the State of New York, Albany, N. Y.

In American education, no principle is more firmly established, nor more widely exercised, than the responsibility of the state to certificate its teachers. Yet, the recognition of this principle has been a matter of slow growth as is evinced by the following outline of the salient steps in the development of certification in New York state.

1795-1812, town commissioners determined qualifications;

1812-1841, town commissioners and three inspectors examined and certificated;

1841-1843, town commissioners and two inspectors examined and certificated;

1843-1847, town superintendent, county superintendent, and state superintendent all authorized to examine and license;

1847-1856, state and town superintendents controlled certification jointly;

1856-1888, county school commissioners (superintendents) examined and licensed, locally, under rules prescribed by state superintendent, and state examined and certificated with state validity;

1888-1894, all questions to be uniform and prepared by the state;

1894, full state control, county acting only as agent;

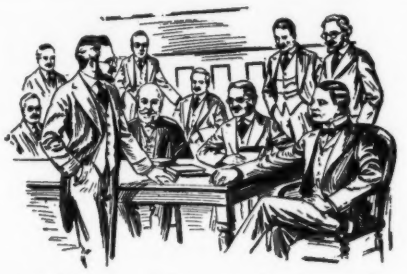
1899, supervision of all teacher-training classes placed with state.[1]

The Evolution in Requirements for Teacher Certification

There has also been a distinct evolution in the academic and professional requirements upon which the certificate should be based. In the beginning, and for a long period of time thereafter, a knowledge of academic subject matter was considered entirely sufficient and certification was based upon an examination to determine whether the individual possessed an adequate fund of information. Gradually, through the influence of the normal schools, there was developed the belief that teachers should have a knowledge of methods of teaching, history and philosophy of education, and other aspects of education which we have now come to consider under the general term, "professional courses." Naturally, the examination system was extended to include these newer professional subjects.

But, the evil attendant upon the examination system that had been perfected to determine detailed knowledge of academic subject matter, led to bitter opposition on the part of those trained in the newer professional school; and finally resulted in many states basing their certification system almost entirely upon professional and academic study.

During the past ten or twenty years there has appeared an ever-growing conviction that professional preparation should be in terms of the need of the position to be filled, and that the certificate should be a more adequate guarantee that such preparation had been thoroughly made. Along with the growth of this feeling and extending over a much longer period of time, there has come a marked differentiation of functions among certain school workers due to the larger number of pupils enrolled in a single school or school system, the ever-increasing intricacy of organization, and the multiplicity and variety of functions to be performed. Until recent years, preparation for teaching and successful experience as a teacher were considered ample preparation for any teaching or supervisory position. Among school people themselves has come the realization that the public expects successful performance of a great many functions on the part of principals, supervisors, and superintendents for which teacher-training courses or teaching experience gives little or no preparation whatsoever. It is the realization of this need that has caused eleven[2] states to experiment with the issuance of special certificates for school administrative officials.



Certificate Requirements for Administrative Offices

A few of these states issue one certificate for all administrative offices. Alabama[3] is perhaps the best example. But the majority of the twelve issue a different certificate for each general type of administrative position.

Indiana[4] best represents this type with its separate licenses for superintendents, assistant superintendents, general supervisors, high-school principals, and elementary-school principals. California[5] issues two types of certificate, one known as the "administration credential" and the other as the "supervisor's credential." There are three classes of the latter: General, special and departmental supervision. Maryland,[6] New Hampshire,[7] and Massachusetts[8] require a special certificate for all superintendents of rural schools, whereas in New York[9] we issue a certificate to city superintendents only. In the latter case such certificates are required of all superintendents who are not college graduates and may be issued to any superintendent who is a college graduate. Indiana, Maryland, and North Carolina[10] issue different certificates to superintendents and principals and further differentiate between the elementary- and high-school principals.

Most of the states issue at least two grades of administrative certificates; one which represents their desired standards and becomes a permanent certificate when issued or after a certain period of successful experience; the second is a provisional or limited certificate issued designedly to take care of those people who do not meet the desired standards. This certificate is usually valid for a term of three to five years, and requires evidence of both successful experience and of continued growth in order to be renewed. In certain cases, such as New Jersey and North Carolina, it is good for one term only, within which period the holder must qualify for the permanent certificate.

The third-grade certificate in Indiana for superintendents and principals has only one qualification, namely, that of experience over and above the qualifications for a teachers' certificate. It was issued only to those principals and superintendents who were holding office at the time the law went into effect and illustrates one means of taking care of administrative officials who cannot meet the standards required for permanent certification.

Since the limited certificate is merely a makeshift designed only to bridge over from the present status of the individual to the desired status he should attain, we may safely ignore its requirements and center discussion upon the requirements for the permanent credential.

College Graduation Requirements in the States

All of the states, except Minnesota, which issue administrative certificates require college graduation. Alabama requires one year of graduate professional work in education. California requires fifteen semester hours of work, over and above the requirement of a teachers' certificate. Indiana requires one year of graduate work specializing in administration and supervision. Maryland requires one year of graduate work in education, including school administration, supervision, and methods of teaching. Maine requires fifteen hours of professional subjects, over and above the four-year degree in order for candidates to be exempted from the state examination for a superintendent's certificate. North Carolina requires eighteen hours of professional study, which may or may not have been included in the four-year college course; in addition it requires two full summer sessions of approved study in educational courses. Only one of the thirteen states grants a permanent certificate on less than college graduation, and six of the twelve require graduate professional credit in addition to college graduation.

In the foregoing paragraph reference has already been made to the fact that practically all of these states require either as a part of the four-year college course, or as additional graduate work, courses in administration and supervision. California and Indiana have made the most definite attempts to list administration subjects that will be accepted as credit. California requires ten semester hours to be selected from not less than four of the following courses; two of the four must be *School Administration and supervision*, and *Growth and Development of the child*.[11]

1. School administration and supervision.
2. Growth and development of the child.
3. Philosophy of education.
4. Educational tests and measurements.
5. History of education in the United States.

It further requires that five semester hours be selected from the following courses:

1. The work of an elementary-school principal.
2. The administration of a high school, or of a junior high school.
3. The organization and supervision of elementary education.
4. The organization and administration of vocational education.
5. The supervision of instruction.
6. Statistical methods.
7. School surveys.

*An address delivered before the annual meeting of the New York State Association of District Superintendents, New York City, Dec. 7, 1927.

[1]Cubberley, E. P., State School administration, p. 623.

[2]Montana and North Dakota have set up standards for certain administrative and supervisory positions but do not issue a special administrative or supervisory certificate. Montana Circular of Information, State Board of Educational Examiners, Helena, Montana, June, 1926. Regulations Governing the Certification of Teachers, 1927, Dept. of Public Instruction, Bismarck, North Dakota, pp. 18-21.

[3]Alabama, Department of Education, Rules & Regulations governing the Examination and Certification of Teachers, Bul. No. 32, 1922, pp. 10-11.

[4]Indiana, Essentials of Teacher Training in Indiana, Regulations of the State Board of Education, Edu. Bul. 75, 1925, pp. 8-10, 22-28.

[5]California State Board of Education, Bul. No. 10, 1925, Regulations Governing the Granting of Special Credentials and Certificates in School Administration and School Supervision.

[6]Maryland School Bulletin, Vol. VI, No. 12, June, 1925, Requirements for Certificates, pp. 3-5, 9.

[7]New Hampshire State Board of Education, Regulations Governing the Approval of Superintendents, Headmasters, Principals and Teachers, 1927, pp. 1-2.

[8]Massachusetts Department of Education, Regulations for Certification of Superintendents of Schools in Superintendency Unions, 1926.

[9]New York Education Law, 1927, p. 304, Sec. 869, par. 1-2.

[10]North Carolina, State Board of Education, Regulations Governing the Certificates for Teachers, 1925, Sec. VI, pp. 9-11.

[11]Regulations Governing the Granting of Special Credentials and Certificates in School Administration and School Supervision, California State Board of Education, January 1, 1925, p. 6.

8. Rural education.
9. The elementary-school curriculum.
10. The high-school curriculum.
11. State and county-school administration.
12. City-school administration.
13. Schoolhouse hygiene and construction.
14. Methods in mental diagnosis.

Indiana requires that 18 semester hours should be selected from the following lines of work:

1. Public-school administration, including school records and statistics.
2. Supervision of instruction.
3. Tests and measurements.
4. School and equipment.
5. School budgets and accounts.
6. Indiana school law.

Alabama and New Jersey require three years of successful teaching experience. New Jersey will accept in lieu of the three years, one year of graduate work in school administration and supervision. North Carolina, Massachusetts, and Indiana require five years' experience. Massachusetts requires that two years must have been in the field of supervision or administration or both, and North Carolina will accept three years of administrative or supervisory experience, in lieu of the five years of successful experience. New Hampshire requires five years of successful experience, or three years of experience plus two years of graduate work, specializing in supervision and administration. California, Maryland, Maine, and Minnesota are satisfied with two years of successful experience. Minnesota specifies that one fourth of the principal's time of this two-year period shall have been devoted to supervisory duties.

Massachusetts still requires a written examination, and Maine exacts such an examination of all candidates who do not measure up to the desired standards. Massachusetts requires an oral examination to determine whether the candidate possesses those personal and professional qualifications requisite for the superintendency. Two other states indicate that they evaluate the candidate's personal qualifications either on the basis of personal acquaintance or on the basis of information submitted through references.

Requirements for Renewal of Certificate

Alabama has set up the most unique method for determining whether or not a certificate may be renewed. The class (*a*) "administration and supervision" certificate is valid for six years and may be renewed for a six-year period upon the fulfillment of any one of the following conditions:

a) Employment in an administrative or supervisory position for four of the six years covered by this certificate and the satisfactory completion of reading-circle work as a member or a director of a group for four of the six years.

b) Completion of courses in administration and supervision in colleges and universities aggregating twelve weeks within the six years covered by this certificate.

c) Membership in both state and national educational associations for the entire six years and attendance on their annual conventions for four of the six years covered by the certificate.

Subject Matter Considered Profitable for Superintendents

A certificate, like a college degree, is merely a symbol representing the attainment of certain desirable abilities. *It should be a guarantee on the part of the state that the holder is reasonably well qualified for performing the functions of the position to which he aspires.* To be sure all of our legislation and formulation of state requirements for administrative and supervisory certificates is an experiment in an undeveloped field; yet, this experimentation is indicative of a growing demand on the part of the public for expert leadership. This demand is making itself felt in various ways and there is some objective evidence as to its effectiveness.

I have examined the university catalogs of Columbia, Stanford, Cornell, New York, Ohio State, and Chicago universities for the years 1911-12 and 1926-27. The following tabulation in terms of semester hours of course work indicates the growth that has come during the last fifteen years in the organized subject matter which school administrators have found it profitable to study.*

	Semester hours credit in Administrative Courses	
University	*1912*	*1927*
Chicago	14	34
Columbia	16	46
Cornell	0	10
New York	8	61
Ohio State	15	54
Stanford	19	48

The hours recorded above do not include courses in supervision, seminars in administration or those courses especially designed for principals of high and elementary schools. It includes only those courses that are listed primarily as required or elective for men and women planning to major in school administration. The table leaves out of the reckoning entirely any reference to the improvements that have been made in the organized subject matter not only of administration and supervision but also of related courses such as history of education, philosophy of education, principles and methods, vocational education, physical education, health education, and psychology.

Whereas, in 1912, a graduate student of Columbia University could take all of the courses offered in administration and supervision in one year and still have one third of his time left for work in other fields, he can today devote two full years of study to graduate courses in administration and spend as many years of additional time as he may care to spend in the field of organized administrative and supervisory research.

Scientific Method Stimulates Demand for Expert Leadership

The application of scientific method to the study of education has stimulated the demand for expert leadership. Today, the American public expects a superintendent to understand thoroughly the administrative relationships that should exist between his board of education and the public on the one hand, and his assistants in the school on the other. They want a man or woman who has a reasonable understanding of economics, of public finance, and of school accounting. The superintendent must be able to plan or supervise the planning of a school building or buildings that will adequately care for all of the educational procedures needed in an ever-changing civilization. The equipment he advises the board to purchase will determine in considerable measure, the success of the instruction given by his teachers. He must know the psychology of childhood, for educational psychology has given schoolmen hundreds of new working tools in the form of standardized tests and measurements through the use of which the public is more and more expecting him to accurately inventory the capacity of each child. When he has made this inventory, then he is expected to direct the revision of the curriculum and the methods of instruction so as to satisfy the educational needs of each child to the fullest measure.

Each year educational research is eliminating useless subject matter and is throwing new light on methods of instruction and upon our understanding of the learning processes. The superintendent is not only expected to have the professional equipment that enables him to understand these newer developments of education but the pressure on him to put the results of his reading and study into practice is ever increasing. These new requirements are additions to, and in no sense substitute for, the commonsense and successful experience that has always been exacted of the school superintendent.

*The data in the above tabulation is only approximately correct due to the differences in opinion as to what really constitute educational administration subjects.

The subjects listed for study in university catalogs are merely objective evidence of the demands that are being made by the public; for obviously, men and women who have entered the teaching profession do not go back to school either for the regular year, or for summer study, unless they believe that the public is willing to pay them good dividends upon their investment. When they go back to the university for graduate work, they demand that the university give them instruction that will enable them to meet the ever-increasing requirements of an exacting public. In turn, university faculties shape their curricula to meet the demands that are relayed to them by their graduate students, men and women directly from the field. Because of this circle of influence, we may safely accept the courses of graduate study in educational administration and supervision as a fair index of what the American public wants.

The Desire for Leadership

Should we seek further evidence of this demand for professional leadership we need but look to the selections made in city superintendents that have become vacant within the past two years. To the best of my knowledge, every city or village superintendency in New York State which became vacant during the last three years, with one exception, has been filled by a man who had already demonstrated his capacity for leadership, through putting into effect in a smaller school system the results of his graduate study. For evidence of this fact, I need but to refer to the recent elections at Gloversville, Glenn Falls, Schenectady, Watertown, Pelham, Saratoga, and Great Neck. Why were these men promoted? Because they had demonstrated their capacity to render a service to their community, a service which the larger communities were seeking and which they had not found being rendered by men who had not kept abreast of the great educational movements transpiring within this country.

There is still another evidence of the demand for professional leadership on the part of school superintendents. Principals seek it; teachers want it. I know superintendents in high places whose days are numbered simply because the rank and file of their staff feel they have lost their capacity to keep abreast of the needs of the school. They lack that something which teachers cannot always define but which, when available, helps them to be better teachers.

The district superintendency in New York State has a history entirely different from city superintendency. The present district superintendency is a lineal descendant of the school commissionership, an office which required no professional qualifications whatsoever, and that found its incumbent through political means. To be sure it was good politics to fill the office with the best available schoolman, but good politics was not always in control. Our present method of selecting district superintendents is merely a compromise with the older political method. Even today in the public mind the office is still under the shadow of political influence. As evidence, the district superintendent looks to the county board of supervisors for an office, for office equipment, for clerical assistance, and for any salary increment over and above the minimum amount guaranteed by the state. These facts do not make the way of the district superintendent easy or tend to increase his professional leadership, primarily because the board of supervisors is selected to serve other purposes than educational service to the community and whatever they contribute to the

(Continued on Page 169)

The Superintendent and the Applicant

Supt. G. H. Marshall, Augusta, Kans.

New Year's Day has hardly passed before applications for teaching positions begin to reach the desk of the average superintendent of schools. As the days begin to lengthen, what has been a mere trickle becomes a streamlet, and by the time the mild days of February give us a foretaste of spring, the streamlet has become a veritable flood which neither the dikes of silence nor the S.O.S. of "No Vacancies" broadcasted far and wide, is able to stop.

Every year from three to five hundred applications from teachers reach my office. This number includes those from fellow superintendents, usually addressed to the president of the board of education, who firmly protest that "under no circumstances is this letter to be considered an application, but merely an inquiry." Presumably these ethically minded souls wish to inform the superintendent of a better place in case he is to lose his job. One such good Samaritan has wasted postage for the past ten years on such an epistle, and I suppose he will do so again if he is still alive. I never hear of him between times.

The geographical range of these applications is remarkable. I have never been able to account for it, except on the theory that certain teachers, when the urge is on them, play a sort of "tit-tat-toe," shut their eyes, whirl their pencils, and, with "If I don't miss, I'll write to this," let their pencils fall where they may. Accordingly, a few days later I get an application addressed, very impersonally, to the "Superintendent of Schools, Augusta, Kansas," from some schoolma'am in Fairport, New York, who yearns to mingle with the Indians and the buffaloes, and, possibly, the "movie" cowboys, of the western plains.

Or, perhaps the message comes from some enterprising daughter of Kansas, who, having started out to "see America first," has taught successively (more often than successfully) in Colorado, Wyoming, Montana, Idaho, and, lastly, Washington, where, having heard the "ocean's insistent roar," she fancies she hears Kansas calling her and immediately sits down and informs fifty superintendents of schools that she is willing to return if the proper inducements are made. Sometimes, in order to save energy for mountain climbing or surf bathing, she has her letter mimeographed, together with the numerous "testimonials" various boards of education reluctant to lose her services, but apparently willing to share them with others, have forced her to accept.

Unworthy of Attention

Perhaps 50 per cent of the applications I receive each year are unworthy of serious attention, and were it not for their unconscious humor—tragic enough in some respects—they might as well be thrown into the wastebasket unread. Many times the envelope itself reveals the character of the writer. In this day of directories it is hardly necessary to address one's letter merely to the "Superintendent of Schools." Such an address can usually be attributed to ignorance of the rules of polite correspondence or to carelessness. It is also poor psychology. Even the superintendent of Podunk likes to imagine that his fame has gone abroad until his name is not unknown. What a shock it was to my dignity when I received an application last spring addressed thus:

"—Postmaster—
Please hand this letter to:
The Superintendent of,
Agusta Public Schools,
Agusta,
Kansas.
I did not know his name.
Thanks. ...."

You may laugh, but you will have to give the writer of this letter credit for one thing—evidently she had a feeling that it was not quite the right thing to address the letter without using the name of the person written to. One can imagine the letter this envelope contained. It is impossible to give its total effect in cold print. Aside from the fact that the word Augusta was misspelled each of the four times it appeared, its whole makeup was crude and showed crass ignorance and the lack of experience of its writer. It concluded with the following naive statement, "I think my service will be worth ($140.00 or less) one hundred and forty dollars per month."

And yet, this letter was well written compared with some received each year. I have among my *jewels* culled each year from the applications I receive, letters which contain all the way from half a dozen to more than four times that many major errors. Postal-card applications, carbon copies, mimeographed letters, and even printed sheets are not at all uncommon. How anyone with a modicum of common sense could labor under the delusion that such epistles will receive serious consideration is one of those things I have not been able to solve. Every year we get applications from persons wishing to teach English or Latin in high school, who persist in spelling these proper nouns without the capital letters. I am sorry the scope of this article does not allow the facsimile reproduction of some letters of application I have in my possession. I believe they would prove an object lesson much worth while. It is a sad commentary on the training of those engaged in teaching when 50 per cent or more of all applications received are impossibilities on their face and may be discarded. It is even more disconcerting to find that probably not more than 25 per cent are worth anything like careful consideration.

What May be Expected

What, it may be asked, does a superintendent expect in the way of an application? Well, perhaps every superintendent expects something different from what every other superintendent expects. But, after all, it is quite likely that the great majority of administrators will agree upon the fundamental things an application should contain and exhibit and what it should not.

Certainly few superintendents will pay any attention to postal-card applications or to those which have any earmarks of having been broadcasted, whether they be printed, mimeographed, or reproduced in quantities by some other method. People who resort to such means, no matter what their nominal education may be, are lacking in a fundamental sense of the proprieties. Such things exhibit about the same manners professionally as drinking out of one's saucer or taking butter with one's own knife do socially.

Misspelling of words in a letter of application is unpardonable. Not because superintendents are infallible in matters of spelling, for they are far from it, but because a misspelled word in an important letter is a sign of gross carelessness and lack of respect for the one written to. What, for instance, can be my opinion of a teacher who spells the name of my town A-g-u-s-t-a when two considerable cities of the United States have the same name and when practically the same word is used as the name of one of the months and as a name for both men and women? What must I think of such an applicant's powers of observation and association? It is not a matter of ability to spell, nor of general education, but is indicative of carelessness and certain other weaknesses generally fatal to any real success.

Penmanship is another matter that is far more important than some teachers think. I for one, like the handwritten letter, although I do not object to the typewritten application, provided the writer shows some familiarity with the machine and knows enough to keep the type clean. Any letter may reveal character, but doubtless the one written by hand gives the reader the greater amount of information concerning the writer. Erasures, scratched words or letters, peculiarity of letter form, poor punctuation, crude sentences, undue formality or familiarity, irregular margins, trailing lines, poor syllabication, bizarre stationery, and perhaps a thousand and one other things, lessen the applicant's chance for consideration.

Follow Good Practice

Nowhere is social usage more strict than in matters of correspondence, and the teachers who violate in their letters of application the most common rules that Madam Conventionality has laid down cannot be surprised if superintendents consider it not worth their while to give them consideration. Social convention is no longer a monopoly of the "effete east." Travel and the general spread of culture make it harder and harder for the uncultured teacher to find employment. As much as I regret to say it, I can remember when the meeting of the state teachers' association reminded me of nothing so much as of a vast flock of blackbirds talking over their contemplated autumn hegira. But that time is past, and let us hope that in the words of the cartoonist, "those days are gone forever." The present-day teacher must be able to mingle in the very best society. The day of the boor is past.

A moot question relative to applications is the matter of return postage. Should the teacher inclose a stamped, self-addressed envelope, or should she not? Opinions differ. In the case of the smaller schools there is not much doubt that the chance for getting a reply is greater if a stamp, at least, is inclosed. And, I might say here, that unless a regular business-size envelope is used, most superintendents would just as soon have only the stamp. It is a nuisance to have to fold an application blank or a letter written on business stationery to fit some tiny or odd-shaped envelope. Personally, I have to admit that I cannot help feeling that it is little short of presumptuous to write a letter to a stranger asking a personal favor and frequently demanding an immediate reply without inclosing a self-addressed, stamped envelope. Certainly it violates no rule and it does show a desire to cooperate and do one's part.

There are certain forms and expressions that it behooves the applicant to avoid. It is irritating to receive a letter starting out with the prevarication, "Hearing that there is to be a vacancy in your blank department," when perhaps the teachers of that department are fixtures and could not be pried loose. A letter is not a telegram and such forms as, "Am a graduate," "Have taught," etc., may be all right when one wishes to save pennies in sending a telegram, but such expressions have no place in a letter of application.

Letters that are "mushy," or those too long-drawn-out with the recital of boastful details are decidedly not in good taste. I once received a letter in which the writer, presuming acquaintance because of a similarity of names, proceeded to tell me she was not so fat as she used to be. Perhaps not, but she was just as silly.

Outlandish Photographs Harm Applicants

Teachers also many times lessen their chances for consideration by sending outlandish photographs of themselves. The only reason for sending a photograph is to show that the original is not an ogre, and, so far as the face reveals it, is of good character and personality. When the main purpose of the photograph has been to preserve to posterity the wonders of a party

(Concluded on Page 170)

Economic Factors Related to School-Population Growth

Fred Engelhardt, University of Minnesota, and Newton H. Hegel, Director of Administrative Research, Minneapolis Public Schools

One cannot anticipate increases in school population in a local district without an increase in productive wealth. Changes in the one can be expected to accompany modifications of the other. The mere fact that this fundamental condition exists has tempted some to assume that the ratio of economic change, expressed in certain of its manifestations, to the total population will remain approximately constant from year to year.[1] It has also been assumed that if the rate of business and industrial expansion could be measured, the measuring unit might be applied directly to determine total population change and hence school population growth. This assumption is based on the hypothesis that school population, being an element of the total population, will bear a direct relationship to the total of which it is a part.[2]

Needs of Forecasting Technic

It is not the purpose of this paper to enter into a detailed discussion of the needs of forecasting technic in public-school administration. Anticipating the future in schoolwork is necessary for two major and fundamental aspects of school management. In the first instance the facts are essential for anticipating plant facilities, and again for planning the current program needs for subsequent years. The solution of the former problem is probably best taken care of through knowledge of the trend of city growth. The most satisfactory results are achieved with an adequate site-selecting technic, which should make possible the location of school buildings in advance of population movements, and which shall supply technic for determining residential saturation. Facts of this nature must be made available in advance to allow time enough to prepare building facilities as they are needed. For planning the current program, some method must be devised which will give accurate detailed school population facts, for organization units as well as totals, two or three years in advance of need if the current budget of the system is to be economically and efficiently managed.

The Problem

In order to be sure that no local source of information or data were being overlooked in the planning technic now used by the school authorities in Minneapolis, a careful canvass of several economic factors and the public-utility services was made to ascertain which of these, for which data were available, could be used either directly or indirectly as a contributing agency in the solution of this baffling school problem. It is believed that a presentation of the facts, as found and insofar as they apply to the Minneapolis situation, might be of service and interest to others.

The officials of the more important public-service corporations, such as the Bell Telephone Co., the Minneapolis Gas Light Co., and the General Electric Co., were interviewed, and the statistical data they had available were thoroughly scrutinized. The municipal departments, including sewers, water, buildings, and taxation were also visited and the problem discussed with those in authority. The records of those departments were reviewed in terms of the possibilities they offered in supplying data which might be used in association with available school-population facts.

Some General Observations

The investigation revealed some rather interesting general conditions which appear to be common to the situation as a whole. Each department or organization visited has a distinct method of keeping, recording, and compiling its statistical data. In many instances records were carefully planned and the facts recorded were intended for specific local purposes, yet always, as one would expect, the data made available are for the specialized interest of the enterprise. The data are tabulated for the calendar year, and in themselves have little, if any, programatic characteristics when considered in relationship to schools. It must be observed in contrast that school statistics are usually records for a school year which begins in July or August.

In many instances there is no effort made to eliminate duplicates in records. Totals of the units used to measure service in one organization may include different factual elements than in others. The unit of measure is invariably different and not comparable. To use the statistical data from any of these enterprises without a full knowledge of the manner in which they are kept and the purposes they are planned to serve will lead to gross misinterpretation and error. It is also to be observed that the data from these enterprises are available only subsequent to the occurrences. The most significant fact found was that service extension or service demands are not always synchronized with population change, for they may lead or lag behind the actual population growth.

Metropolitan Areas

In many of these activities canvassed, the city boundaries is not the unit of operation. Services in many enterprises are extended to include the metropolitan district. This area is subdivided and includes many of the rapidly growing suburban communities. There is no way of separating the facts as they apply to the city from those of the metropolitan area taken as a whole. This overlapping destroys the use of such data for school comparison purposes. Again, subdivision is not as a rule by school districts or wards.

Specific Factors to be Considered—Sewers

In addition to the general peculiarities inherent in all the sources received, there were other aspects which were found to be characteristic of each enterprise. The sewer system (Table I), the unit of service being one connection, is an interesting example. One sewer connection may serve one or more families, and hence, cannot be directly associated with population change. Planning a city sewer system is an engineering task and the development is not only one of extending service to meet new population requirements, but in adapting the system to a complicated topographical problem. These conditions usually confront those responsible. In order that the system may operate by gravity, and because of the "lay of the land," sewers must frequently be extended into areas remote from population developments in order to serve areas within built-up sections. On this account, parts of the city area may be occupied and yet sewers may not be laid for a number of years. In a case like Minneapolis, where the legal bonding limit has been almost reached, sewer extension may lag years behind the actual service requirements.

Water Meters

Another factor which has been used as an index of population growth is the water-meter connections. Water service is measured by the meter, and meters remain in the home even though it may be vacant. Meters may be ⅝ in. to 6 in. in size. The smaller one is usually installed in the residences. One meter may serve a single home or an apartment accommodating many families. There is no direct relationship between total number of meters and families. Real estate development may anticipate population change. Meters are installed when construction takes place and even with the destruction of property duplicates are not removed from the records.

Building Permits

Building permits are issued for modification of buildings and new structures. A detailed classification of these is not always available. The classes in which permits are granted in Minneapolis does not indicate the number or size of families to be accommodated. Permits may be issued, yet construction may be delayed or plans may be abandoned. Building permits may be sought by operators in advance of population change, or they may be the result of demand due to congestion. Again, building may be in excess of demand. No one has yet determined how well building construction is synchronized with population change. The war period is an interesting illustration of restriction of building development, with the overbuilding tendency after the war was over. Facts regarding building permits do suggest the trend of city development. On the other hand, however, they are not indicative of gross changes since movements into new areas may result in losses in another less desirable location. Changes in residence may also be due to shifts caused by the encroachment of business or industry upon certain sections of the city.

Gas and Electricity

This investigation revealed that for Minneapolis gas- and electric-service increases are likewise not accurate indices of total population change. Economic factors and social changes are important elements modifying the demand for these services. Advertising campaigns, change in rates, and prosperity may result in the requests for service in many of the old residential sections. There are also many duplications in the records of the public utilities. A large part of the business in these enterprises for the past years has been that of providing service for homes already constructed and occupied.

TABLE I. Average Number Belonging in Public Schools, Number of ⅝-Inch Water Meters, Gas Meters, Electricity Customers, Total Taxable Assessed Valuation, and Telephone Services. Minneapolis, Minnestota, 1911-1926

Year	Average Number Belonging	⅝-inch Water Meters	Gas Meters	Number of Electricity Customers	Telephones	Number of Sewer Connections	Assessed Valuation to nearest Thousand Dollars
1911	40,135	34,403	no data	no data	no data	.....	$406,202,000
1912	40,996	37,620	62,697	no data	no data	.....	431,786,000
1913	41,129	41,012	68,145	no data	no data	31,447	444,964,000
1914	42,356	44,344	73,145	no data	no data	34,275	497,909,000
1915	44,858	47,940	77,683	no data	no data	37,093	501,306,000
1916	46,671	51,539	83,162	31,022	no data	40,199	538,245,000
1917	49,324	55,109	85,070	38,660	51,199	41,975	564,641,000
1918	50,061	56,812	85,908	41,880	48,170	43,170	582,480,000
1919	51,312	58,800	91,229	48,670	50,974	45,163	594,818,000
1920	53,511	60,856	94,429	55,865	55,758	47,366	687,335,000
1921	58,214	63,969	96,849	64,607	56,196	50,567	688,901,000
1922	62,147	67,721	101,556	76,216	59,807	54,103	709,250,000
1923	65,120	71,568	106,559	84,731	63,540	57,581	734,579,000
1924	68,629	75,471	110,015	90,519	66,122	60,787	768,335,000
1925	70,522	79,480	113,676	97,269	69,370	64,110	786,252,000
1926	72,141	no data	115,787	99,510	71,440	66,839	805,211,000

[1]Hart, F. W., and Peterson, L. H. University of California—See Pasadena (California) Survey and Cranford (New Jersey) Survey.
Sears, J. B., Berkeley School Survey.
[2]Engelhardt, Fred., Forecasting School Population, Bureau of Publication, Teachers College, Columbia University, 1925.

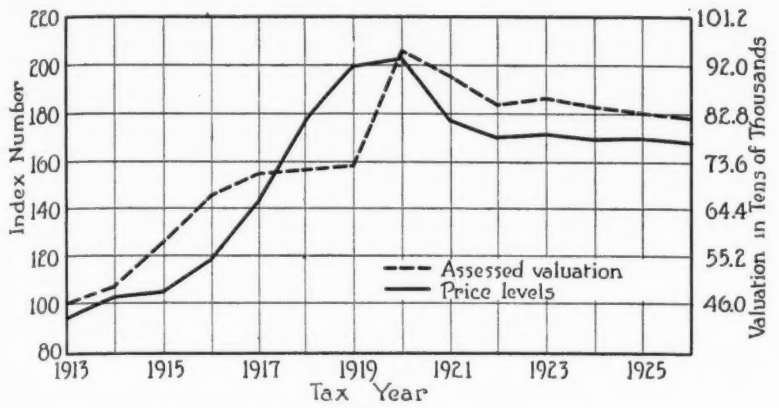


DIAGRAM 1.

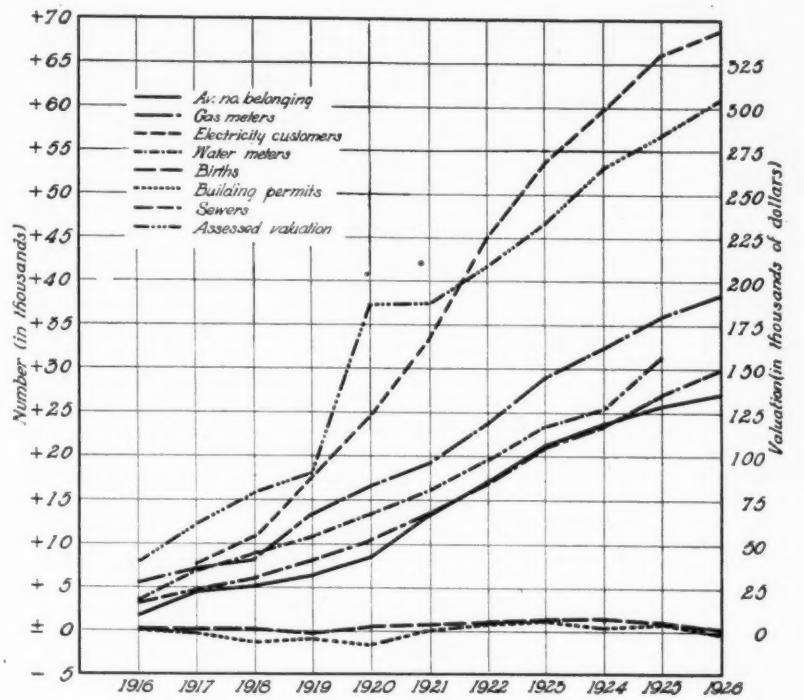


DIAGRAM 2.

Telephone Service

There is no enterprise which has made a more detailed analysis of service needs than the Bell Telephone Co.[3] The research service of this organization has built up an extended and refined technic for forecasting needs. In Minneapolis this company operates in the metropolitan area, and the facts for the city proper cannot be isolated. This at once destroys the use of the available data for school population prediction. Shifts in population from one section of the city to another result in duplications which are not always eliminated in the data as presented.

Assessed Valuation

Bank clearings, postal service, and taxable valuations are other economic factors which have at times been used to forecast school population. Of these, valuation has been most frequently used. To assume that taxable valuation fluctuates directly with population growth appears even to the casual observer to be fallacious. Diagram 1 shows an interesting relationship between the change in the taxable valuation in a small city.[4] The population in this city has been static during the period considered. In this case the valuation assumes about the same trend as the purchasing power of the dollar. In a growing city this fluctuation in price levels is no doubt hidden in the large increase of new taxable properties. Studies have shown that in rapidly growing communities the taxable wealth lags behind the increase in population.[5] Assessment adjustments, and political control, are other factors which influence taxable values periodically in such a way as to destroy any relationship which may exist between total taxables and population.

Trend in Growth

Table 1 shows the change in the taxable wealth, number of consumers, or services in operation for certain basic public-service needs in the city of Minneapolis for a period of years. These facts are related to the average number belonging in the public schools during this same period. There is a distinct trend of increase in all of these elements. Yet, a careful study of the data reveals no direct or indirect relationship which may suggest the use of one set of data to gather any specific information concerning changes in the others. The variation in these trends is shown more clearly in Diagram 2. A careful study of these curves indicate that movements in one, as expressed by the nature of the curve, is not the same as any one other. A composite of them all would confuse the situation and would be of little value in indicating a specific city population development. No one curve seems to be synchronized with school population or to offer any prognostic possibilities, and hence, is of little service in relating changes. Births and building permits are not included in this table, since these are not cumulative.

If the change of each of the various public-service elements is related to the conditions

(Concluded on Page 172)

[3]Engelhardt, Fred., Forecasting School Population. American School Board Journal, April, 1925.
[4]Engelhardt, Fred., Business Administration in Ortonville, Minn.
[5]Engelhardt, Fred., Robbinsdale School Survey, 1925.
Henry, N. B., Study of Public School Costs in Illinois Cities, 1924.

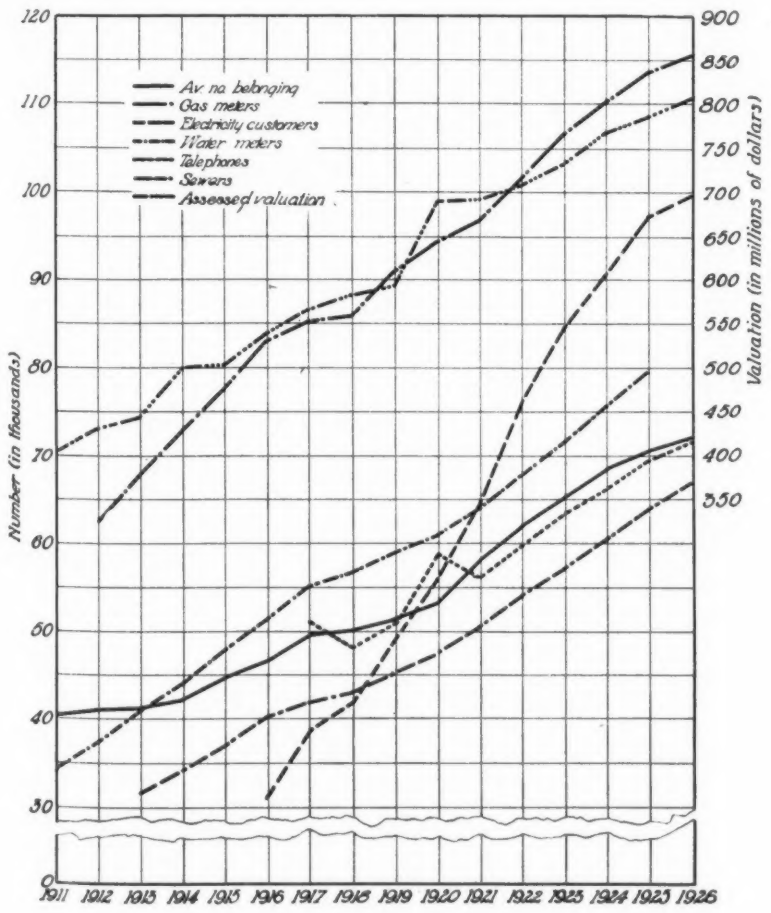


DIAGRAM 3.

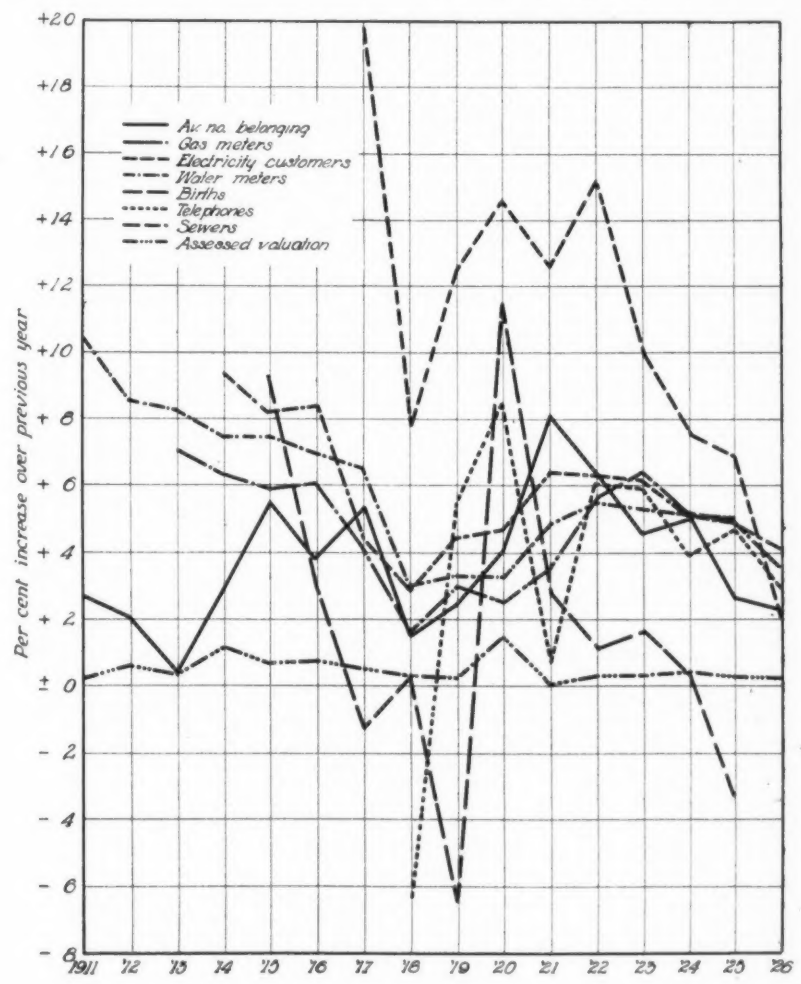


DIAGRAM 4.

The Medford Continuous Census

Mrs. B. H. Bryant, Director of the Census

In September, 1926, through the cooperation of Supt. E. H. Hedrick and the patron-teacher associations, there was set in motion in Medford, Oreg., a plan for keeping an up-to-date check on all school pupils in the district, known as a *continuous census.* It does not supplant, or in any way interfere, with the annual school census which the Oregon law requires to be taken in October of each year, but merely supplements and keeps it up to date respecting new arrivals of pupils and the shifting of pupils within the district. Medford is a city of a little over 12,000 people, with 3,250 children on the school census. Because of the city's industries and the rapid rate of growth, there is considerable shifting in the resident school population. There are also within the city and school district several large automobile camps in which a goodly number of more or less transient people are being harbored for indefinite intervals of time throughout the major portion of the year, and especially is this true in the early fall or fruit season.

The census records for the past year show that 805 new children entered the school district, while 181 other pupils were listed on the census roll by reason of becoming 4 years of age, making an increase of 986. On the other hand, 686 children left the census roll, 123 of them by reason of becoming 20 years of age. The total increase in school population is eleven per cent above that of last year. These figures are mentioned because they are fairly typical and indicate not only the amount of change that is constantly going on among the school population, but they argue strongly for some effective means of keeping up with it on the part of school administrators.

The Operation of the Plan in Medford

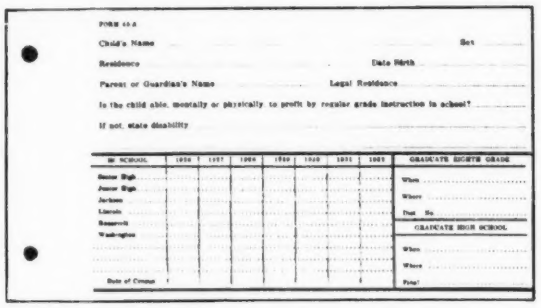
The central council of the Medford patron-teacher associations, which is formed by a representation from each of the city's local chapters, annually appoints a continuous-census director. This officer, working with the city school superintendent, recommends the proper subdivision of the city for census purposes, and also the appointment of resident enumerators in each subdivision. She is further responsible for keeping the system alive and functioning, and for assisting individual enumerators with their problems.

Reporting New Arrivals to the Office

For the purpose of this census, the city is divided into subdistricts, boundaries of which, so far as possible, are marked by street lines. In each subdistrict a resident enumerator is "on the job" and whenever a family with children between the ages of 4 and 20 years moves into a house in that district, the enumerator calls and lists the children on the blanks provided and mails the report directly to the city superintendent. If the family is a new arrival in the district, that fact is noted at the main office and census cards are made up for the children. If the family moving in represents only a "shift" from another part of the school district, that is also noted in the main office, and a change of address is made on the census cards already in the school files.

Blank forms, postage, and envelopes for reporting to the office are furnished all enumerators. Each enumerator is also given a certificate of official appointment by the school district. Ten cents per name is paid by the city schools for each enumeration made and sent to the office throughout the year. A sample of the report form used by the enumerators is shown.

This slip is an exact duplicate of the regular census card employed by the district, with the exception that the card itself has printed on


Child's Name ..... Sex .....
Residence ..... Date Birth .....
Parent or Guardian's Name ..... Legal Residence .....
Is the child able, mentally or physically, to profit by regular grade instruction in school? .....
If not, state disability .....
IN SCHOOL | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | GRADUATE EIGHTH GRADE
Senior High
Junior High
Jackson
Lincoln
Roosevelt
Washington
Date of Census
When .....
Where .....
Dist. No.
GRADUATE HIGH SCHOOL
When .....
Where .....
Year

CENSUS BLANK USED AT MEDFORD, OREG.

the reverse side, spaces for changes of address on the part of the pupil, as he may move about from time to time within the city.

The Advantages of the Continuous Census

The enumerators are not responsible for the enforcement of the compulsory education law. When an enumeration is made and reported to the office, it is checked with the enrollment records; if the child is not in school or does not appear at school within a day or so, the attendance officer is sent out. Children who are subject to the operation of the law are required to enter at once. If they prove to be indigents, books are loaned to them by the district. The automobile camps are canvassed at least once each week for children who should be in school. The operation of the plan in Medford has gone far in solving the problem of the education of the transient child, which is one of the big problems of the present day.

Without some effective means for keeping a school census up to date, a compulsory education law is of little force. Children must first be discovered before they can be put into school. Unless a school system has some plan or organization to handle this, children may move into a city and be there a year, without entering school or the authorities being aware of their presence.

A continuous census, always up to date, helps to keep the school office informed as to the shifting of pupils within the district. The school transfer cards show this very well for the time school is in session. However, such records do not show it for pupils under 6 years, who will probably enter with the new semester; neither do they show the movement of pupils during the summer months when schools are not in session, which is the time of the greatest amount of shifting on the part of families. Such a census enables the superintendent's office to know where the pupils are in September, and enables it to make needed adjustments in the way of ward lines and room additions in advance of the opening day.

It is of great assistance, also, in carrying out another feature of the patron-teacher program; namely, the round-up of preschool children which has been a regular order of business for several years past.

Another result of patron-teacher cooperation in the continuous census work, as stated by the city superintendent, is: "The continuous working of active resident enumerators, distributed as they are at intervals of every few blocks, has operated to create a greater interest in regular school attendance throughout every section of the city. It has decidedly quickened both the community consciousness and conscience in this respect."

The Functions of the Elementary Principal

Clarence R. Stone

Various writers have presented somewhat different analyses of the functions and duties of the elementary principal. A review of the most important ones of these will aid in giving an adequate conception of the nature of the principal's work, his chief duties, and the relation of these duties to his primary function as an educational leader.

Reavis' analysis. W. C. Reavis[1] classifies the duties of the supervising principal as: (1) managerial, (2) professional, (3) social. Under the first he mentions the inspection of the school plant, assignment of new pupils, attention to cases of tardiness, truancy and the like, attention to the mail, conferring with visitors or callers, ordering supplies and repairs, keeping records, making reports, making the payroll, attending to cases of discipline, giving attention to problems arising as a result of inclement weather, giving fire drills, and excusing pupils from school. Under professional duties he emphasizes the need for the systematic collection of both qualitative and quantitative data for guidance in the improvement of instruction. He emphasizes the duty of the principal as an interpreter to the teachers of the policies formulated by the superintendent and special supervision and his duty as a director of the teachers' efforts along the lines that will produce the best results for the children of the school. Under social duties he mentions securing cooperation of parents' associations, encouraging the wider use of the school plant by the community, making the school a community center, directing the organization of play activities, and developing neighborhood cooperation in necessary civic movements of the school district.

McClure's analysis. Worth McClure[2] divides the functions of the elementary principal into supervision of teaching, administration, community leadership, professional study, and clerical work. C. E. Marston follows the same classification and lists 69 specific duties. He lists ten under supervision of teaching: defining the aims of education and those of his school; interpreting and applying the course of study; organizing subject matter for instruction; planning with teachers in service through teachers' meetings, conferences, observation, and direction; analyzing errors of instruction and finding remedies; assisting in visual education; showing the best use of equipment (maps, charts, reference books). The writer would combine the last two because visual aids to education merely form a part of the instruments of instruction. Principals should be of service to teachers in helping them to learn appropriate uses of visual aids in instruction, but such service is not more important than helping teachers to learn appropriate uses of various other instruments of instruction. Probably it is not the function of the principal to provide the pupils with motives for study, but to aid the teachers to do this.

Hunter's analysis. Superintendent F. M. Hunter[3] of Oakland, California, gives the chief functions of the principal as: executive, supervisory, and creative. Under the third, he mentions original experimentation, contribution to work of the school system, and to education, stimulation of his staff to contribute, and crea-

(Concluded on Page 141)

[1] *Elementary School Journal* 19:279-284 (December, 1918).

[2] McClure, Worth, *Elementary School Journal* 21:500-514 (March, 1921).

[3] *Fourth Yearbook of the Department of Elementary School Principals, N. E. A.,* 1925.

The Purification of Water with Special Reference to Swimming Pools

Frank E. Hartman, Chemist and Engineer, Chicago, Ill.

The sanitation of a swimming pool presents many problems, foremost among them being the purification of water, without which the pool would soon become a medium for spreading disease rather than a medium for healthful exercise.

Ordinarily, in the purification of water, we are concerned only with the condition of the water immediately after it is purified. No provisions are required for maintaining any standard of purity, against the effect of continual contamination, subsequent to its purification; nor need consideration be given to the possibility of having to repurify the same water time and time again.

It is obvious to all concerned with the care of pools, that here the requirements are somewhat different, for the water is in use over a protracted period of time, during every minute of which its purity is of vital importance. Further, for economical reasons, the water must be used over and over again, and this fact alone presents a problem for which we have only just found an adequate solution.

Perhaps the first attempt at maintaining a constant standard of purity of the water in a pool, was the use of continuously flowing water. The advent of the meter discouraged this practice, and its value, at best, was dubious, since the rate of flow was rarely sufficient to really maintain the standard of purity required.

This method was replaced by periodically changing the water in the pool, a truly atrocious makeshift, which was not abandoned until the evidence against it became overwhelming. In fact, this method is in use in some pools at the present time, in spite of the fact that unpurified water in a pool becomes a veritable incubator for bacteria.

The Filtration Method

The need for continuous repurification soon became evident, and the circulation of the water through filters was first resorted to. This practice is venerable in age, as compared to other means now in use, and has been retained as an essential part of every method of repurification up to the present time; yet, search as one may, no properly thought-out technic can be found for adapting this age-old principle to an admittedly new set of conditions. There is, further, a lack of data that would throw light on the defects of the process, with the view of correcting them, and for such success as has been obtained with the filter, credit is due to the filter alone.

There are two methods of filtration: one, the slow sand method, which requires very large filtering areas, and this, together with other reasons, is impractical for use with swimming pools, though under proper care excellent results may be obtained.

The second method is called variously, mechanical and rapid sand filtration. Its practice is generally accompanied by the use of a coagulant, and is the method used in practically all plants of moderate size, though it is not infrequently employed on a municipal scale.

The action of a filter is that of a mechanical strainer. Its efficiency depends upon its power to mechanically retain impurities present in the water passed through it. When a filter is depended upon to remove bacteria from water, some idea of the magnitude of the task imposed upon it may be visioned by considering that a glass of sparklingly clear water may contain millions of bacteria. An individual bacterium is, indeed, small, and though bacteria occur in suspension, not in solution, in water, and, therefore, may be removed mechanically, their order of magnitude is such as to place them in the class of colloids, which presents a variety of problems to the filtration engineer.

Coagulants in Filters

One can readily appreciate how impractical it would be to employ filters having at once pores sufficiently small to retain bacteria, through mechanical straining, yet sufficient capacity to supply water in quantities demanded by the recirculation of a swimming pool. In fact, mechanical filters, used for this purpose, do not have pores sufficiently small, and in order to compensate for this, coagulants are used.

The action of a coagulant is perhaps best illustrated by the well-known example of egg white in coffee. Egg white is mostly albumin, and when placed in water forms a colloidal solution, which, upon heating to above 56 degrees centigrade, coagulates, and in doing so, entrains all of the fine particles of coffee, making a rather bulky mass of the whole, which readily settles to the bottom, leaving a clear supernatant liquor. Here the egg white acted as a coagulant, forming a coagulum, which, due to its bulk, became readily separable from the solution.

Coagulants used in water filtration act in the same way, but the method of producing the coagulum is not identical. As aluminum sulphate is the coagulant most generally used, it is the one that will be treated here. Aluminum sulphate, erroneously referred to as alum, is a crystalline solid, containing 18 molecules of water of crystallization. Its percentage composition, when pure, is approximately 8 per cent aluminum, 43.5 per cent sulphate radicle, and 48.5 per cent water. The aluminum is the only active coagulum-forming constituent of the salt. The reaction of aluminum sulphate in the production of aluminum hydroxide, which is the active coagulating material, depends upon the presence of alkaline earths or metals, combined with acids weaker, in their chemical affinity, than sulphuric acid. Most surface waters, and practically all well waters, contain sufficient calcium or magnesium bicarbonates to react with the quantity of aluminum sulphate generally employed for coagulating purposes. Roughly speaking, one part of aluminum sulphate crystals will require 0.5 parts of alkalinity, expressed as calcium carbonate, to completely precipitate the aluminum hydroxide. Very soft waters, such as encountered in many of the New England states, or waters containing no earthy carbonates, cannot be effectively coagulated with aluminum sulphate, unless additional reagents be employed.

Problems Arising from Use of Aluminum

Aluminum sulphate hydrolyzes readily, due to the fact that aluminum is a very weak base, while sulphuric acid is of the strongest order of acids. On the other hand, earthy carbonates are composed of very strong bases, in combination with one of the weakest of acids; in consequence, these salts are largely hydrolyzed when dissolved in water. If we now consider the mixing of two such solutions, the tendency will be for the strong base to combine with the strong acid and the weak base with the weak acid. This results in the formation of sulphates, from the earthy carbonates, with the production of aluminum carbonate. Now, due to the ready hydrolysis of aluminum salts of weak acids, aluminum carbonate cannot exist in water. The water, which is potentially basic or acidic, in this case, acts as a base and forms aluminum hydroxide, carbon dioxide and water, from the aluminum carbonate.

The foregoing is theoretically true, but in practice we must not lose sight of the fact that we are working with very dilute solutions and are desirous of obtaining complete reaction. The velocity of chemical reactions is largely determined by the law of mass action, which states that the velocity is proportional to the mass participating. In the case of coagulating water, the masses involved are extremely small. For this reason, it is not an easy matter to obtain either a quick or complete precipitation of aluminum hydroxide from the sulphate added to the water, and this is the principal trouble met with in the operation of the moderate size mechanical filtering plant.

Precipitation of the coagulant is assisted somewhat by reaction or hydrogen ion concentration of the water, the optimum being different for practically every water, and this effect is confined to very narrow limits. This condition is bad even in the filtration of water in the ordinary way, and when we are faced with the necessity of filtering the same water over again and again, our difficulty is considerably augmented. Among the new troubles, thus introduced, we may enumerate the continuous using up of the alkalinity of the water by the continuous addition of aluminum sulphate, until the point is reached when there are no longer sufficient earthy carbonates left to react to produce a precipitate. Further, aluminum sulphate is quite acid in character and its continuous addition to the water increases the hydrogen ion concentration so far over to the acid side, that it becomes almost impossible to obtain a good precipitation.

The Alum Filter

So far, we have not touched upon the inadequacy of the design of the average small mechanical filter, an inadequacy that has managed to scud along so long as the water was filtered only once, and probably quickly used thereafter, but comes glaringly to light when the water is filtered over and over again and in the meantime retained in large volumes in the pool. This inadequacy is found in the manner of introducing the coagulant. This is generally accomplished with a so-called "alum pot," a chubby, wee fellow, fashioned of cast iron and provided with a by-pass line, so that a portion of the water to be filtered may pass through it, and controlled by a graduated needle valve. The crystal "alum" is dumped into this device, the needle valve set, largely by guesswork, and the process allowed to go merrily on, frequently long after all of the "alum" has been dissolved from the pot, which, if the operator is a bit generously inclined when setting the valves, occurs all too quickly after the pot has been charged.

If this were the whole story perhaps something could be done about it, but here the makeshift is perfect; the alum pot is separated from the filter by only a short piece of pipe, hence, an indeterminable quantity of "alum" is dumped directly upon the top of the filter, which is filtering at the rate of perhaps three gallons per square foot per minute, and with the void space which generally obtains with good sand grading, the rate of downward flow would be such as to turn the water out into the effluent in about five or six minutes' time. During this time the complete precipitation of the aluminum hydroxide is supposed to occur, flock formation take place, and a coagulum produced for building up a filtering membrane *on top of the sand,* so as to present a trap from which bacteria and other colloidal matter may not escape.

The simple answer is that all this does not occur. The alum pot soon proves to be a nuisance; its opaque character makes it impossible to tell whether it is full or empty and one must shut off the water and remove its top, a

troublesome operation which seems never to be done. Trial-and-error method of gauging the by-pass setting requires a degree of persistence, skill, and care which seem never to be found in happy combination; so what does occur is the complete abandoning of the alum pot and the filter becomes a "coarse strainer"—few of them are anything more; but at least the appearance of a slimy white scum is eliminated from the water and the astringency, due to unprecipitated alum, which affects the delicate membranes of the body, disappears. This scum, which finds its way into the filtrate, is the coagulant which was supposed to be left on the *top* of the filter, for producing an impervious filtering membrane.

The Real Problem

The problem which confronts us is not difficult of analysis. What is required is the addition of a *measured* quantity of aluminum sulphate, its complete mixing with the water to be filtered, a *complete* precipitation of the aluminum hydroxide, accompanied by the formation of a flock to produce a coagulum, and all of this should occur *before* the water passes into the filter. Various methods have been tried to accomplish this, such as the adjustment of the reaction of the water, the addition of lime and soda, etc., but the difficulty lies with the variable character of the water. Its reaction varies from day to day, hence the corrective measures must vary accordingly. This requires chemical control of the filters, something which is not economically practical with a moderate plant. For this reason, such methods have not been developed for the small or moderate size plant. With a swimming pool, however, conditions are somewhat better, as the variability of the water is somewhat less than is the case with a raw supply; however, even here some skilled control is required.

Doubtlessly, if something better had not been found, some of these old methods, long in use with large or municipal filtering plants, would have been revamped for the swimming pool. This is needless, however, for a new method has now been perfected that places the small filtration plant on a par with the larger ones, under the finest chemical control.

A filter, when operated at its proper efficiency, is a valuable adjunct to any method of water purification or sterilization. Aluminum hydroxide offers an ideal coagulant. It is extremely gelatinous in character, with a decided tendency to flock. When introduced into water and mixed well, in the act of flocking it entrains small suspended particles, and further serves to absorb colloids and agglomerate them into bulky masses which will not only be removed by the filter sand, but will largely settle out, if some opportunity for sedimentation is provided. This reduces the burden on the sterilizing equipment and when the sterilizing agent used is incapable of oxidizing organic matter, the filter is successful in greatly improving the quality of the finished water, as it will remove the organic matter in colloidal suspension.

If we are to obtain the benefits of a filter, which it is capable of giving, we must consider the requirements and give them the same careful thought and design that we give to the sterilizing apparatus. It is very true that the sterilizing apparatus can be made adequate to take care of the doubtful filtrates which issue from the neglected filter, and it is also true that regardless of how efficient we maintain the filtering plant, we cannot depend upon it to purify the water to an extent that will be at all times safe; but even so, it is bad engineering to overlook the filter, for if we can add comparatively inexpensive apparatus to the filtering plant, and save a great deal more on the sterilizing equipment, it behooves us to look carefully into it.

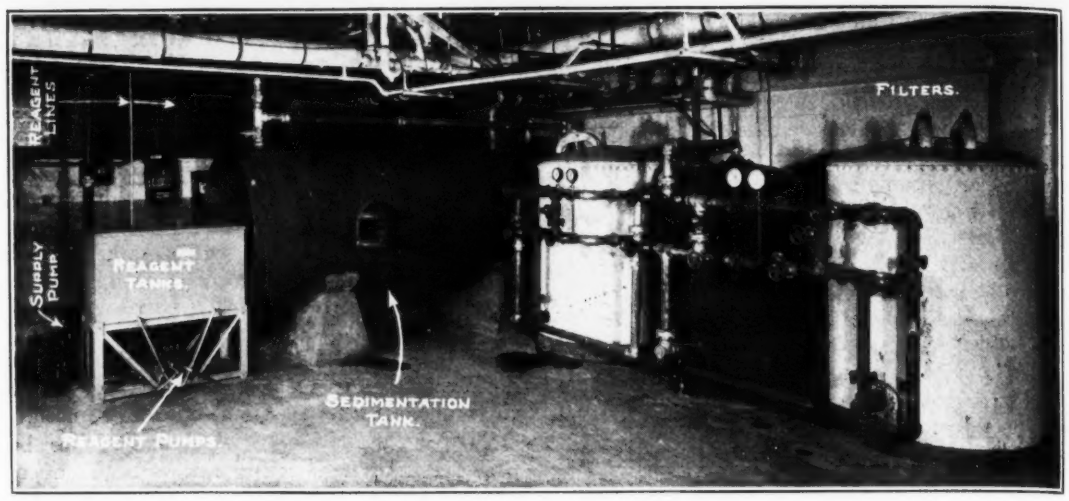


FIG. 1. A COMPLETE FILTRATION PLANT.

Solution of Filter Problem

We have stated our problem, analyzed it, know its requirements, and have indicated the benefits to accrue from its solution. It now remains to outline the method of solution.

First, in order of importance, is the treatment of the water with a *measured* quantity of coagulant. If insufficient coagulant be used, the water will not be properly filtered; if too great a quantity is employed, the filter will become unduly clogged, occasioning a waste through too frequent back washings. We may thank this so-called age of science for at least one thing: it has taught us the value of control. Many processes, hitherto considered an art, have been reduced to mechanical simplicity through the introduction of control. If we will now begin with control—where charity should—at home, we shall leave posterity a great deal more to be thankful for.

Since aluminum sulphate is a crystalline solid, it is difficult to obtain a measured feed of the dry salt in small quantities. This is best accomplished by reducing it to a solution and feeding it into the water with a measuring pump. Extremely accurate and quite positive acting adjustable pumps have been developed for this purpose.

We are next concerned with obtaining a complete precipitation of the coagulant so added. As before remarked, this is accomplished on a large scale by the addition of reagents for correcting the reaction of the water, or may be carried out as part of a softening operation. This requires very close chemical control and is, therefore, impractical for small-scale operations. What is required is some substance that may be added, regardless of the reaction of the water, within certain limits, of course, to react with the aluminum sulphate to produce a quick and *complete* precipitation of the aluminum hydroxide. This substance should further provide for the complete neutralization of the acid liberated from the aluminum sulphate, but must not otherwise affect the water, beyond introducing a harmless soluble sulphate.

An Alkaline Precipitant

Such a substance is found in praecipito, an alkaline solution, which possesses all the properties here sought for. Praecipito comes as a heavy liquid, which may be diluted with water to any required density, and is fed in along with the aluminum sulphate solution, employing a measuring pump for properly proportioning it. The best practice is to introduce the aluminum sulphate solution ahead of the praecipito solution. Some method of insuring a proper mixing of the two solutions into the water should be employed.

The action of praecipito is practically instantaneous; however, it should be introduced sufficiently ahead of the filter to insure a complete precipitation of the coagulant, before entering the filter. When this is done, a film, or membrane, is formed over the sand. This membrane is highly gelatinous in character, and at the same time light and loose. This membrane acts to retain the coagulated matter on the *top* of the sand, thus avoiding a deep contamination of the filtering bed. Unless the coagulant is completely precipitated before the water enters the filter, precipitation will occur in the deeper strata of the sand, thus making it more difficult to properly wash the filter, and further, produces a deep contamination of the bed, which hastens the growth of bacteria through the sand.

As precipitation with praecipito is so rapid, a coagulation chamber is hardly essential, particularly for swimming pools, as the temperature of the water favors rapid reactions. However, in the colder climates, where this method of coagulating is employed for raw surface waters, a coagulation and sedimentation chamber is to be recommended, particularly if the water runs heavy in suspended matter.

Figure 1 illustrates this method of filtration as practiced at the syrup plant of the Coco Cola Company at Chicago.

The Operation of a Satisfactory Outfit

The filters are supplied from a pump, and the reagents introduced just ahead of the coagulation and sedimentation chamber, by reagent pumps. The reagent pumps are supplied from a double compartment reagent tank. From the sedimentation chamber the water passes through the filters and thence through an ozonizer to use. The water produced by the filters is sparklingly clear, free from all color, and perfect in every respect, as regards physical character.

Lake Michigan water runs very heavy in suspended matter and at times carries a considerable quantity of colloidal clay. In the winter the temperature of the water is quite low. For these reasons the coagulation and sedimentation chamber is practically necessary. The water is introduced into this chamber through an arrangement of manifolds, which provides a splendid mixing of the reagents, these manifolds being housed in one end of the tank. The water is further baffled, so that it enters the sedimentation compartment in a quiet state. Here sufficient time is provided for the completion of all reactions, even with the coldest water, and a settling out of a large portion of the coagulated suspended matter. However, sufficient flocculent coagulum passes over to the filter to permit of building up an effective filtering membrane and prevent the deep contamination of the beds.

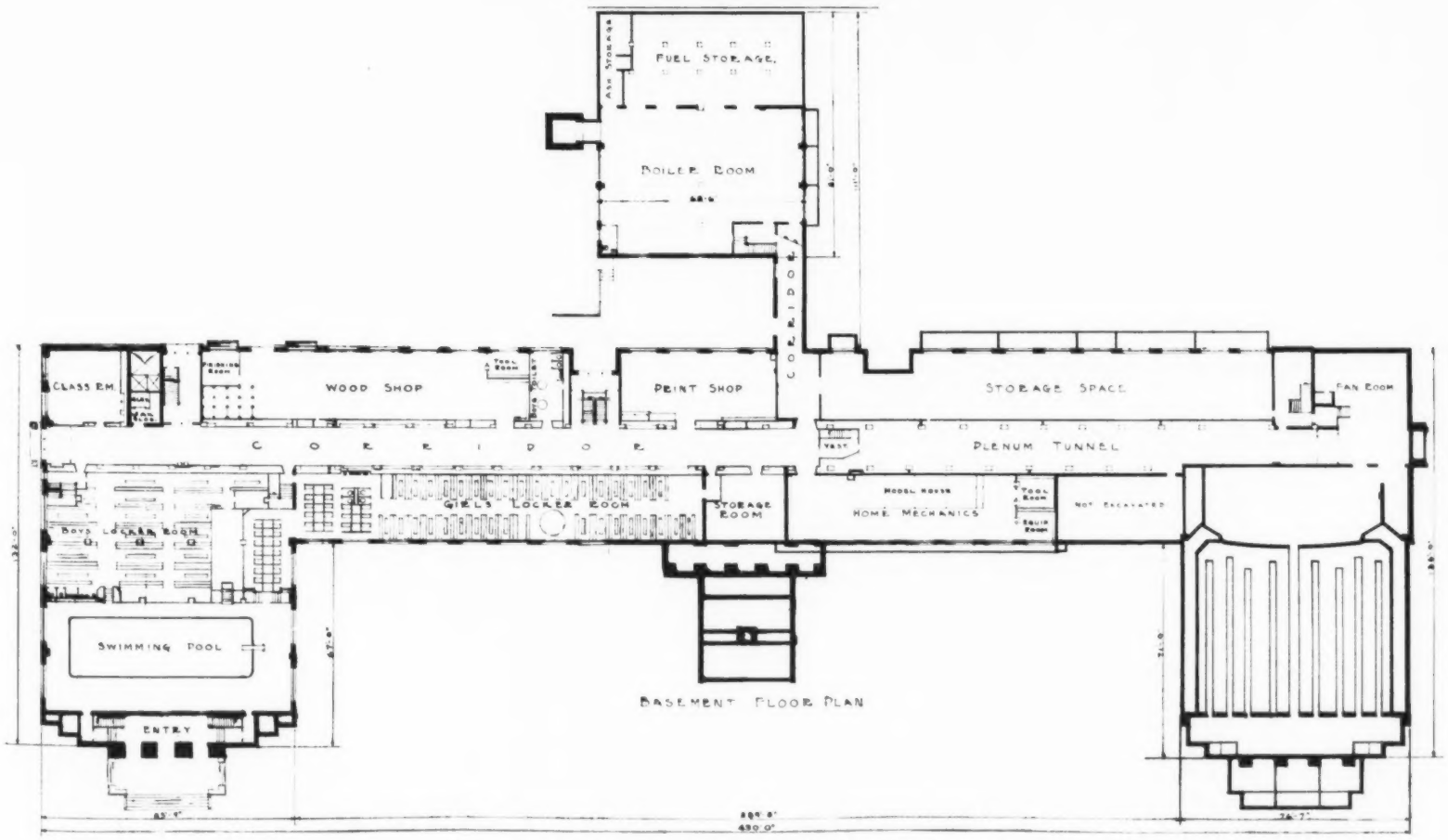
The separation of the heavier matter in the sedimentation chamber appreciably reduces the amount of back washing required for the filters and gives the filters a much greater capacity.

This installation has been chosen for illustrating the method, as it includes the sedimentation chamber. The only care, in addition to

(Continued on Page 141)



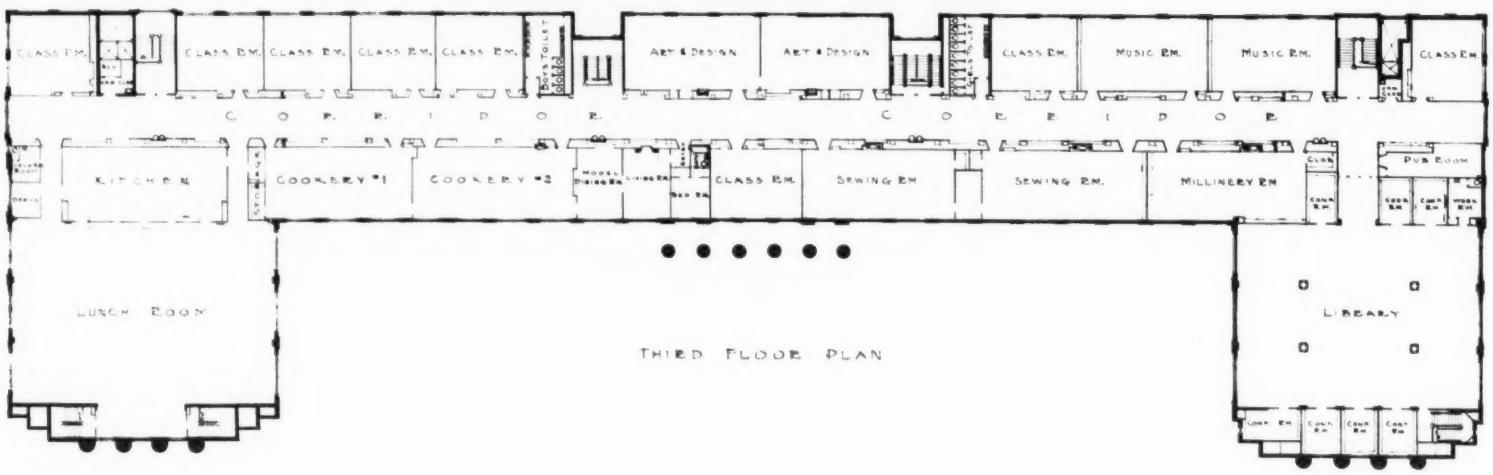
DETAIL OF ENTRANCE,
ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

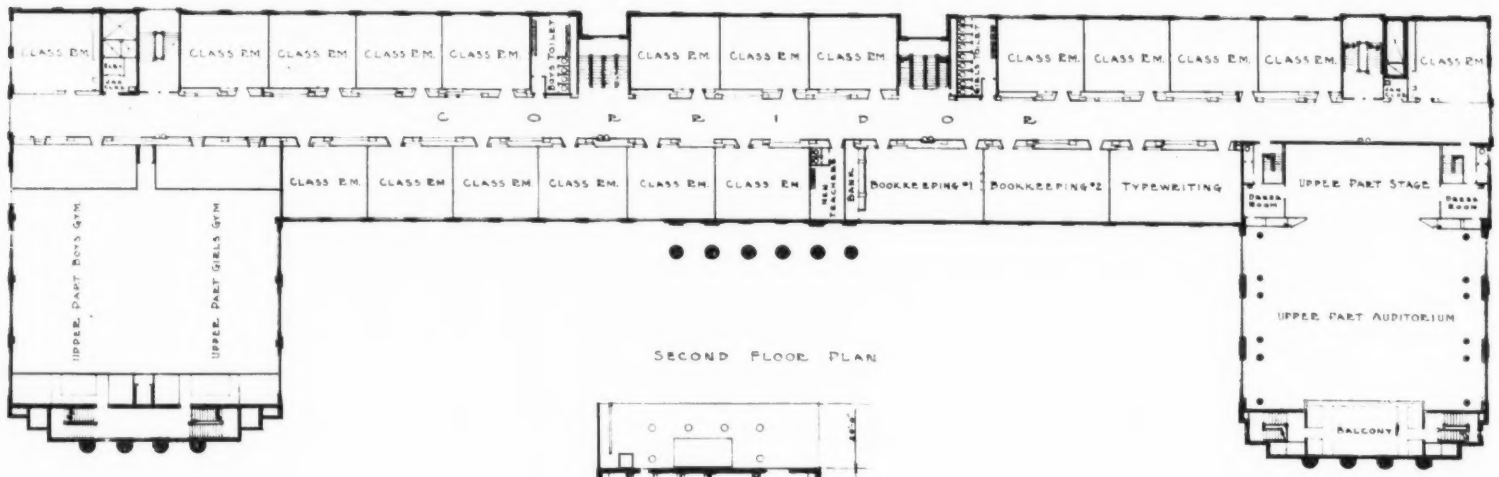


ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

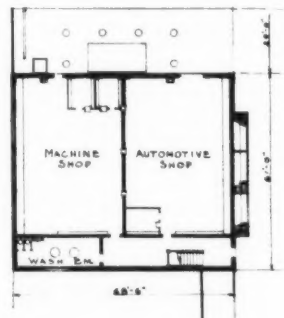


ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

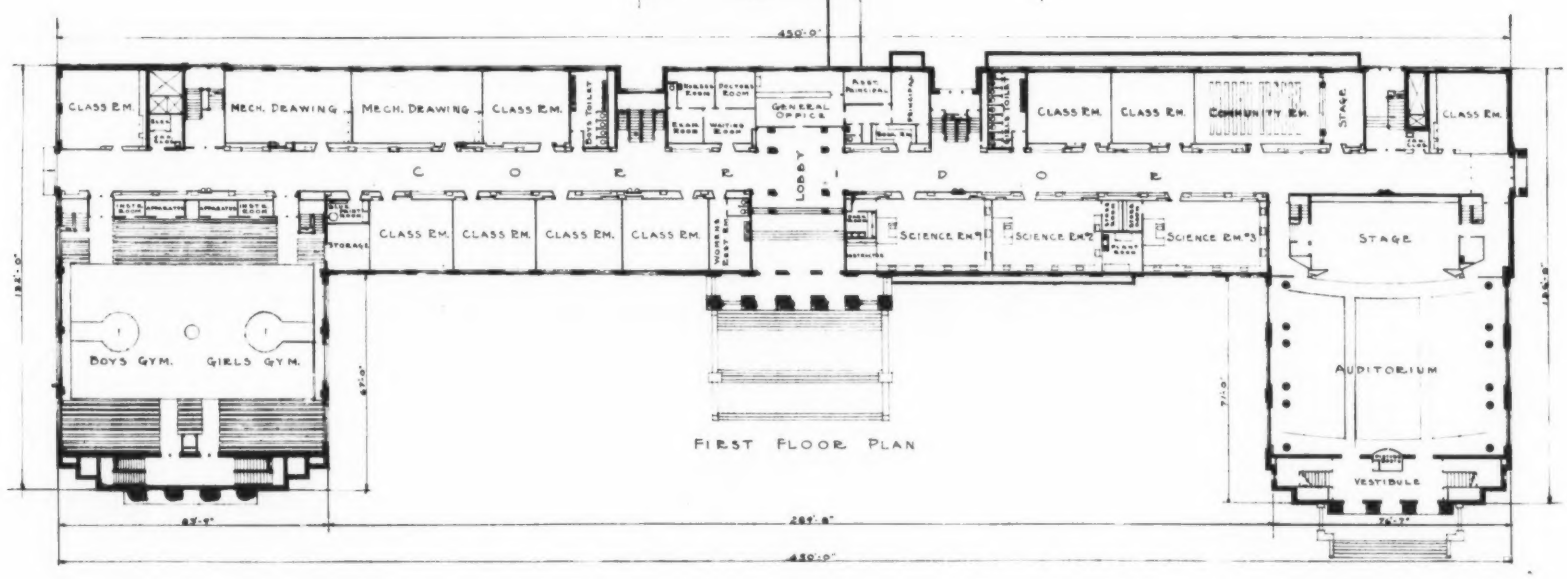




ABRAHAM LINCOLN JUNIOR HIGH SCHOOL,
ROCKFORD, ILL.



Peterson & Johnson, Architects,
Rockford, Ill.



THE ABRAHAM LINCOLN JUNIOR HIGH SCHOOL

Frank A. Jensen, Superintendent of Schools, Rockford, Ill.

The Abraham Lincoln Junior High School at Rockford, Ill., is located on Charles Street, placed rather far back from the street. It consists of a long narrow building with wings extending from either end toward the street. The classrooms are on both sides of the corridors, which extend the length of the main portion of the building on each of the three floors. The special departments of the school are located in the wings, with exits so arranged that these parts of the building can be used when the rest of the building is closed, thus permitting community use.

The building is of fireproof construction, both concrete and steel being employed in the structural members. The partition walls are of brick or gypsum block. The stairs are of steel and tile and in the end pavilions are inclosed.

The style of architecture is Greek Doric. Indiana limestone was used for the principal front, which consists of an imposing center pavilion flanked by smaller pavilions at the east and west ends of the building. The balance of the building is built of a light-colored brick, with stone trim, enriched by carving.

All windows have steel sash, and all exterior doors and frames are of hollow metal.



AUDITORIUM,
ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.



LECTURE ROOM,
ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

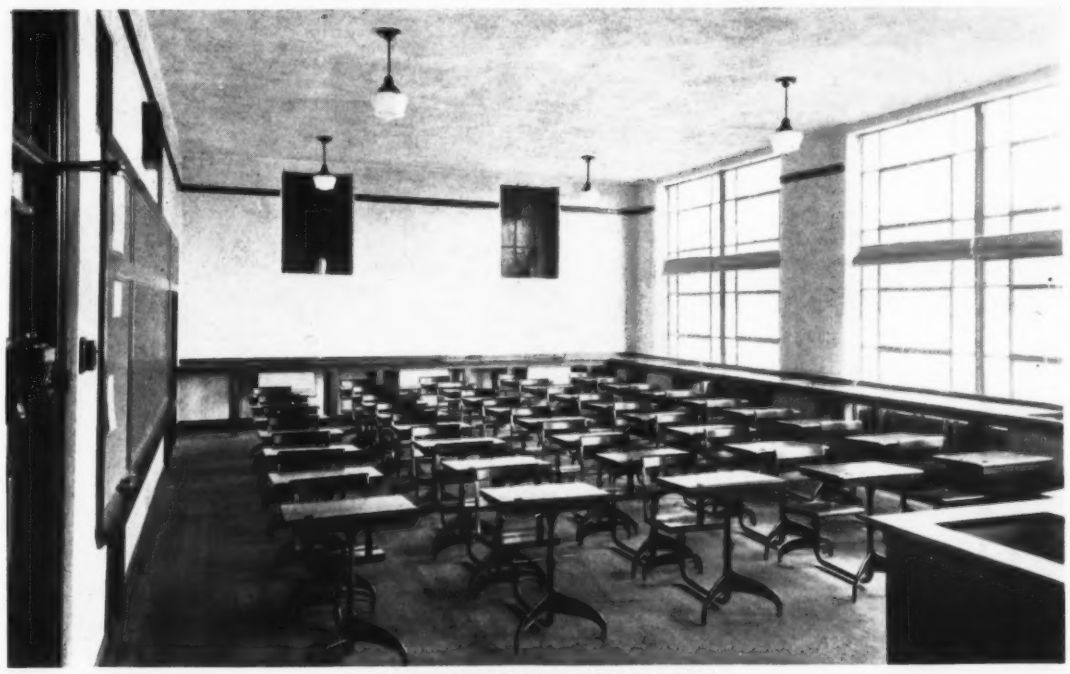
Bronze light fixtures mark each entrance and two attractive bronze urns at either side of the main approach furnish vertical shafts of light, which further emphasize the central feature.

The heating and ventilating of the building are arranged with a split system having 27,000 sq. ft. of direct radiation for heating the building, and 160,020 cu. ft. of warm fresh air for ventilating same, supplied by five major fan systems delivering the air through plenum tunnels below the corridors, then through ducts to the various rooms in the building. Steam is supplied by three portable firebox boilers, operating at low pressure. Condensation is withdrawn from the systems and returned to the boilers by vacuum and boiler feed pumps. A dual system of temperature regulation is used for controlling both the heating and ventilating systems.

In the east wing are located the auditorium and the library. The auditorium has a seating capacity of 700. It has four entrances, two within the building and two from Charles Street. At the Charles Street entrance is a ticket booth, which is used at times of public entertainment. The room is equipped with a large stage, a fireproof moving-picture booth, a moving-picture screen, and a stage curtain of royal-blue sunfast velour. It is a beautiful room in both design and decoration. The walls, as in most of the special rooms, are in a two-tone finish, which blends beautifully with the window hangings and stage curtain. On either side of the room is a row of columns which gives the semblance of an aisle. Between pairs of columns may be seen the high-arched windows before which hang chandeliers of antique design. The room is well lighted, for in addition to the chandeliers there are wall brackets and indirect lights on the ceiling. The stage is large enough for the production of plays and operettas. It has a grand piano and is equipped with both flood and footlights. Steps ascending from the entrance to the stage lead to the two dressing rooms above, which are fitted with chairs, tables, mirrors, and lavatories.

The library, directly above the auditorium, is a large, cheerful room with windows on three sides. There is a large skylight with indirect lights just below, and large square pillars at each corner, on each side of which are very

(Continued on Page 150)

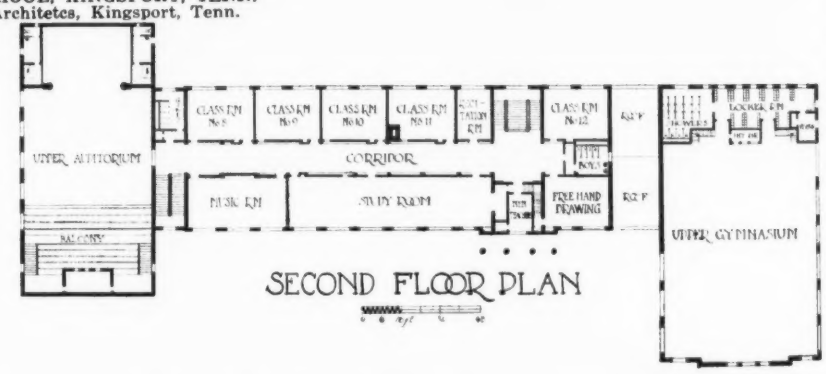


LABORATORY-RECITATION ROOM,
ABRAHAM LINCOLN JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.



DOBYNS-BENNETT HIGH SCHOOL, KINGSPORT, TENN.
Dryden, McKenzie & Brady, Architetcs, Kingsport, Tenn.







DOBYNS-BENNETT HIGH SCHOOL, KINGSPORT, TENN.
Dryden, McKenzie & Brady, Architects, Kingsport, Tenn.



GYMNASIUM.

DOBYNS-BENNETT HIGH SCHOOL, KINGSPORT, TENN.

Ross N. Robinson, Superintendent of Schools, Kingsport, Tenn.

The new Dobyns-Bennett High School at Kingsport, Tenn., is an example of a building designed by the architects to meet the specific educational requirements, as outlined by the superintendent of schools and the board of education. A complete outline of the educational accommodations was worked out before the architects were chosen. This outline included a description of the type of school, its capacity by departments, its orientation, and the materials to be used in the construction and finish. Specific requirements were laid down as to entrances, stairways, doors, lighting, sanitation, corridors, service systems, classrooms and

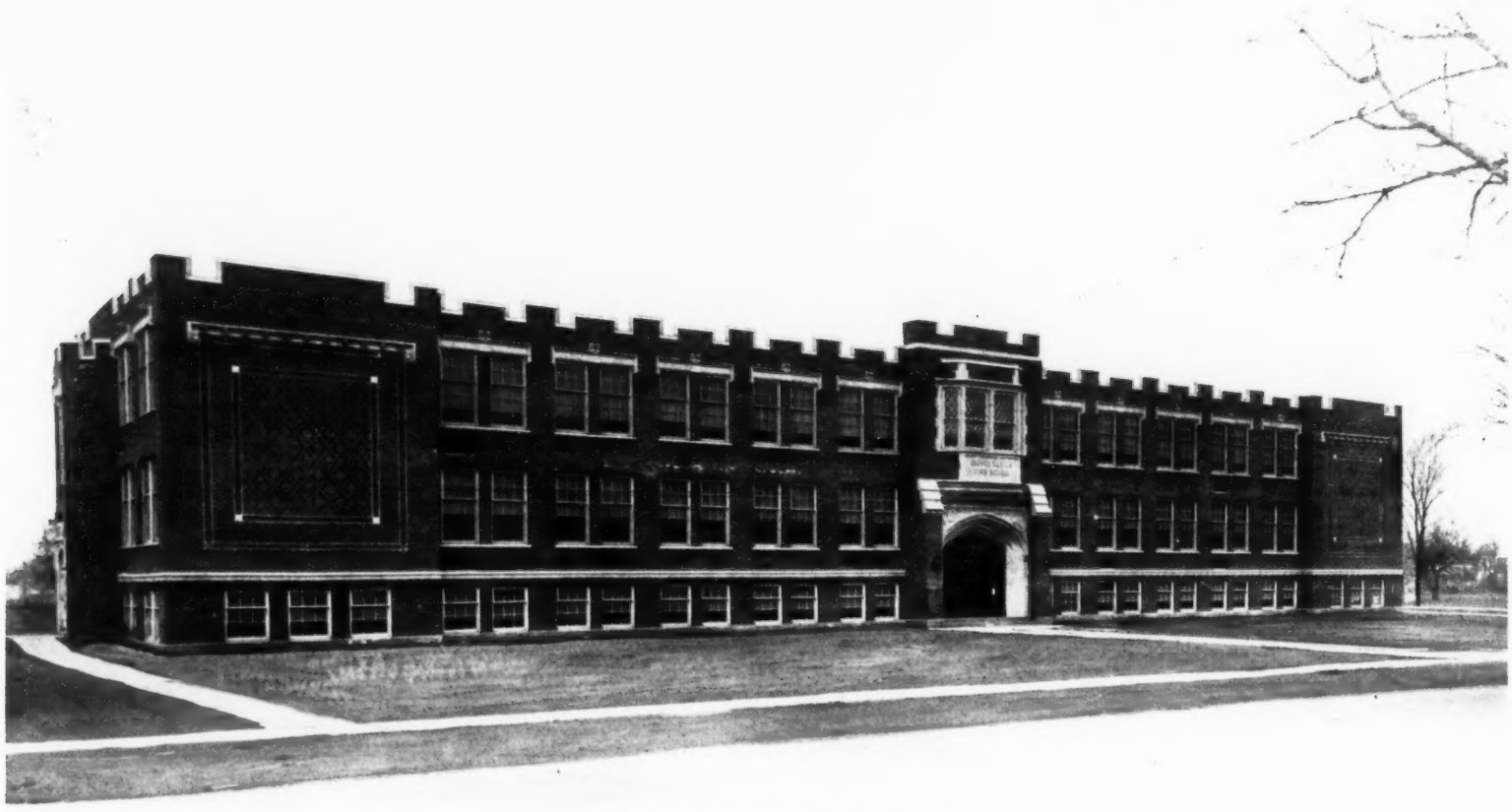
(Continued on Page 152)



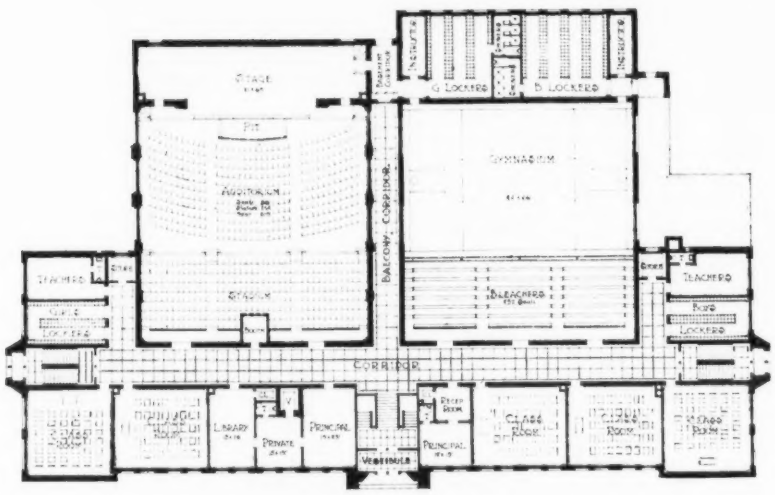
AUDITORIUM, DOBYNS-BENNETT HIGH SCHOOL, KINGSPORT, TENN.
Dryden, McKenzie & Brady, Architects, Kingsport, Tenn.



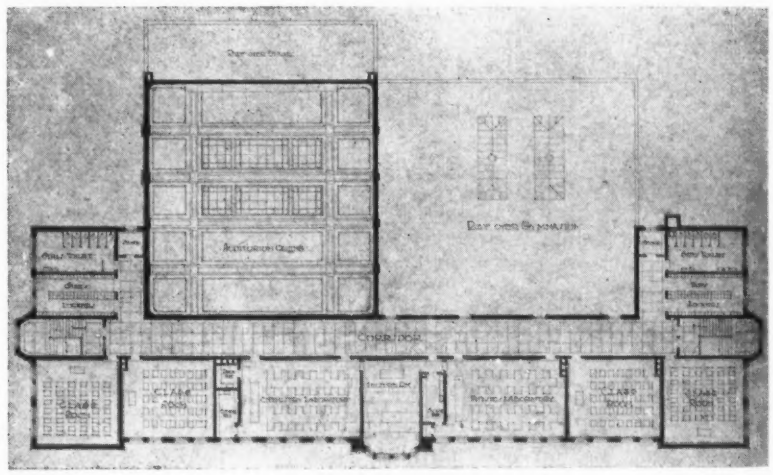
AUDITORIUM, SCOTCH PLAINS HIGH SCHOOL, SCOTCH PLAINS, N. J.
John Noble Pierson and Son, Architects, Perth Amboy, N. J.



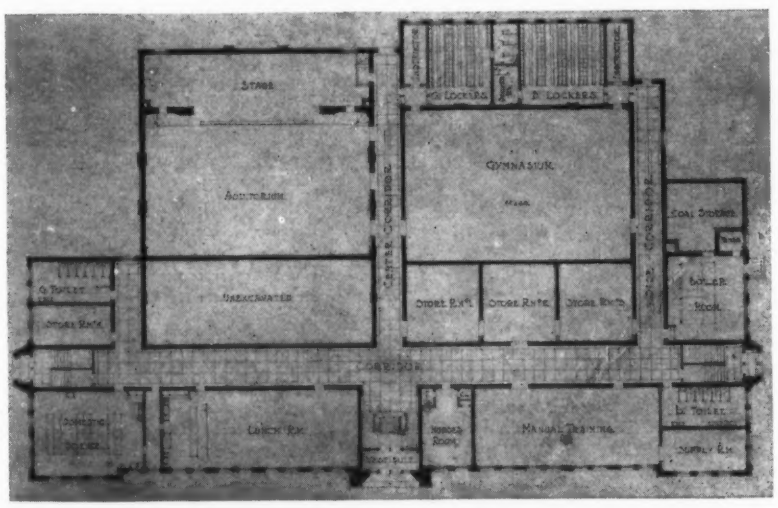
SCOTCH PLAINS HIGH SCHOOL, SCOTCH PLAINS, N. J.
John Noble Pierson & Son, Architects, Perth Amboy, N. J.



FIRST FLOOR PLAN.



SECOND FLOOR PLAN.



BASEMENT PLAN.
SCOTCH PLAINS HIGH SCHOOL, SCOTCH PLAINS, N. J.

THE SCOTCH PLAINS HIGH SCHOOL
John Noble Pierson & Son, Architects, Perth Amboy, N. J.

The Scotch Plains high school, serving the school district of the township of Scotch Plains, N. J., was begun in October, 1925, and occupied October 1, 1926. As the floor plans show, it is a unit-type building, allowing for additions in units of two rooms each.

The building is of the forty-year bond-issue type, known as the fireproof type under the school laws of the state of New Jersey. It is constructed of reinforced concrete floors and roof, masonry partitions, and impervious tapestry brick exterior trimmed with terra cotta. The style is a modified Gothic, particularly adapted to schoolhouse buildings. It is a handsome structure and has been the subject of favorable comment by numerous educators and members of boards of education who have examined it.

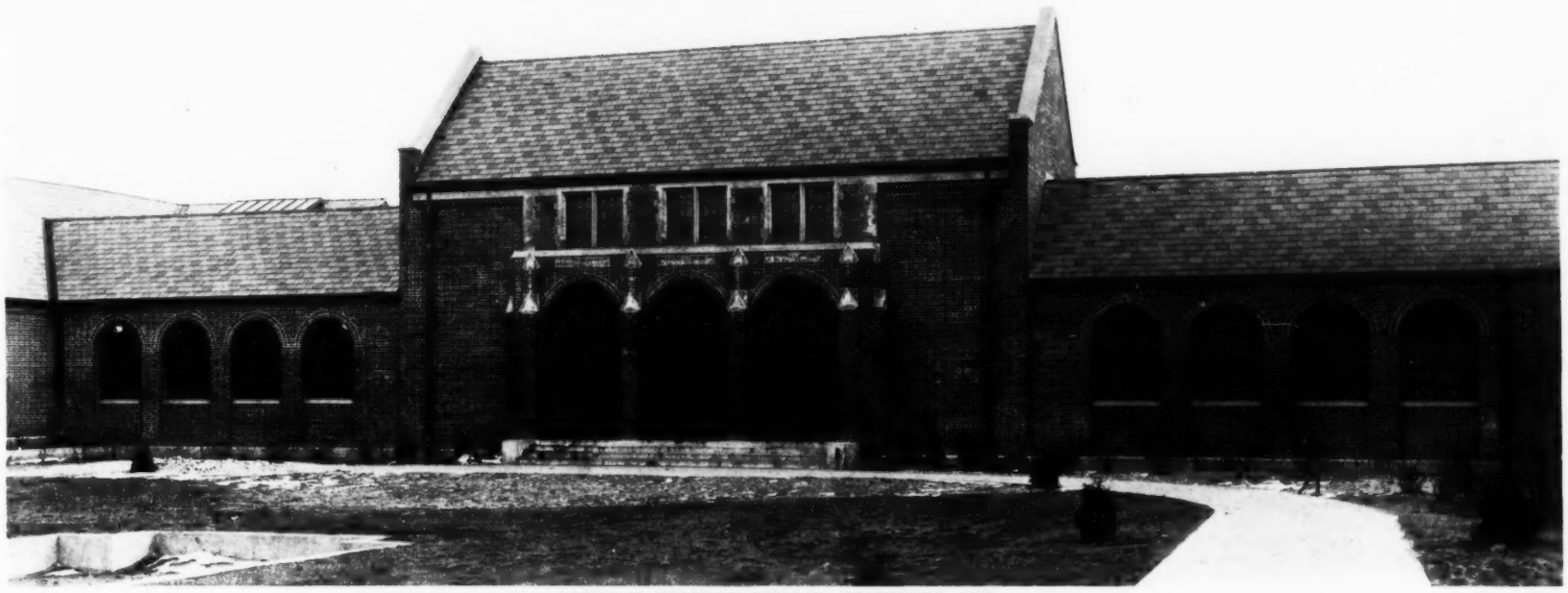
The basement contains a large manual-training room with a supply room. There is also a lunchroom, capacity 150 pupils; storeroom and domestic-science room, a nurse's room, two toilets, gymnasium with locker rooms for both sexes, instructors' rooms, and the necessary storerooms and utility rooms. The basement is located approximately 18 inches below the actual grade of the building outside, thus assuring an ample supply of light and a dry floor. The auditorium and gymnasium, which are at grade level, are reached by a slight ramp from the basement floor. From the auditorium and gymnasium floor levels, stadium steps are erected to the first floor level, providing means of inlet to these rooms from the first floor as well as the basement.

The first floor contains the school board's office, a private office, two rooms for the high-school administration, five recitation rooms, two teachers' rooms, and two locker rooms.

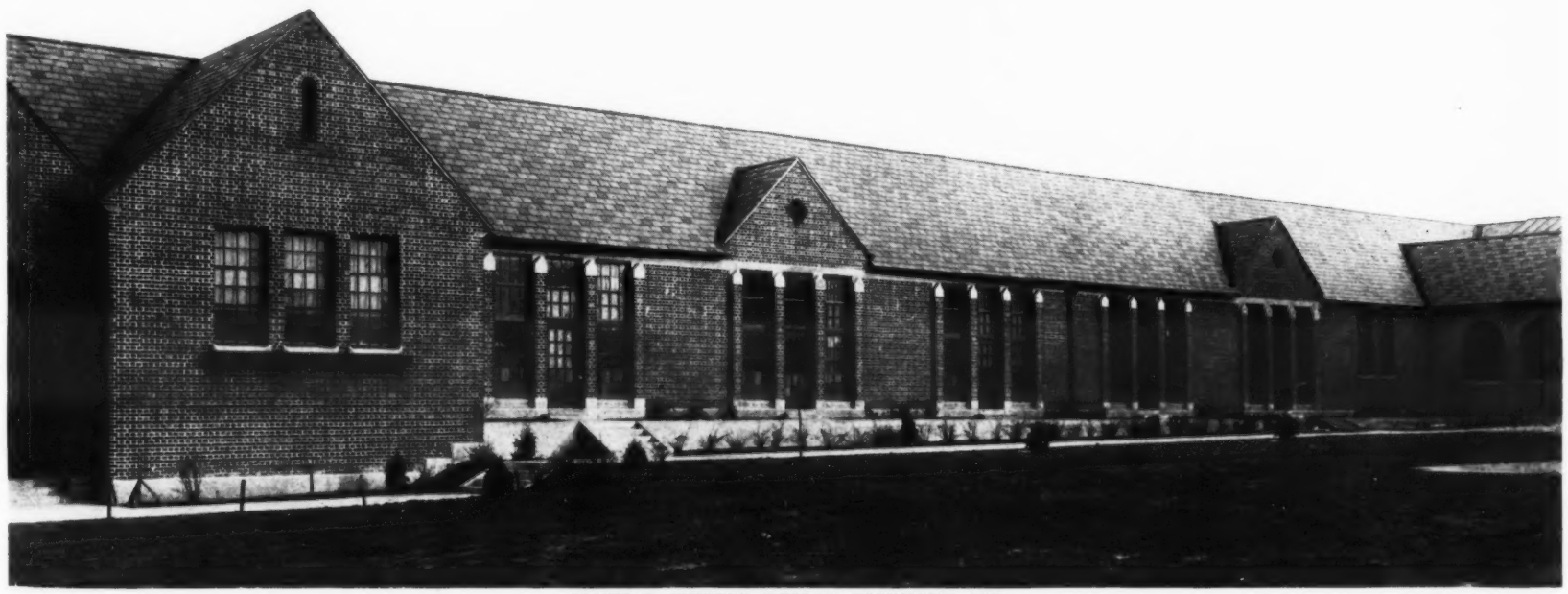
The second floor contains four recitation rooms, two laboratories, one lecture room, two locker rooms, and two toilets.

The corridor floors are covered with rubber tiling, with an enameled cement base. The toilets are wainscoted, with glazed tile and plastered with specially prepared cement plaster, and shower rooms are tiled, full height. The building is trimmed with hardwood throughout, with enameled brick sills.

(Continued on Page 154)



JAMES F. HIBBERD SCHOOL, RICHMOND, IND.
Hamilton, Fellows and Wilkinson, Architects, Chicago, Ill.



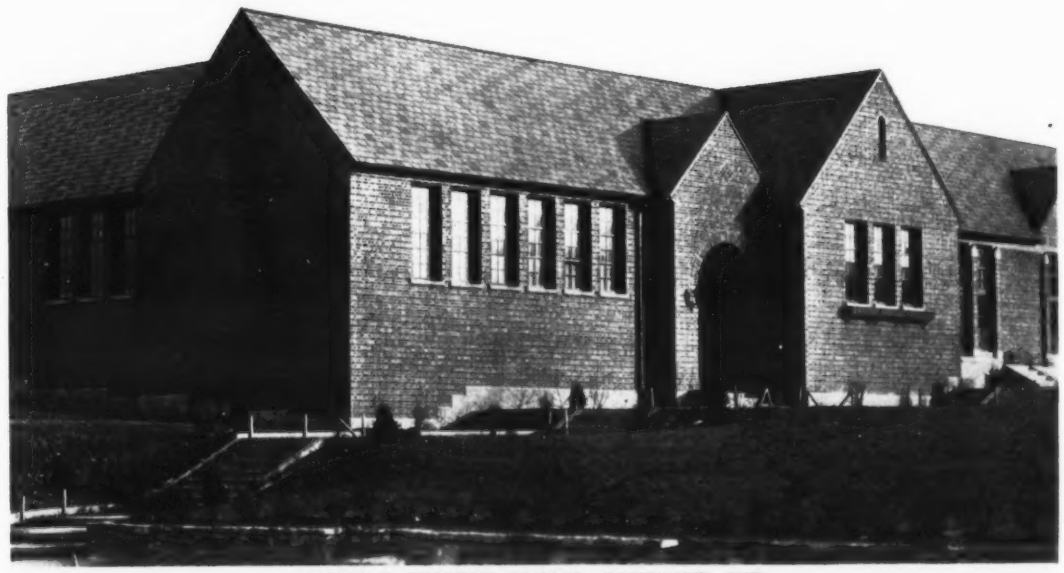
JAMES F. HIBBERD SCHOOL, RICHMOND, IND.
Hamilton, Fellows and Wilkinson, Architects, Chicago, Ill.

THE JAMES F. HIBBERD SCHOOL, RICHMOND, IND.

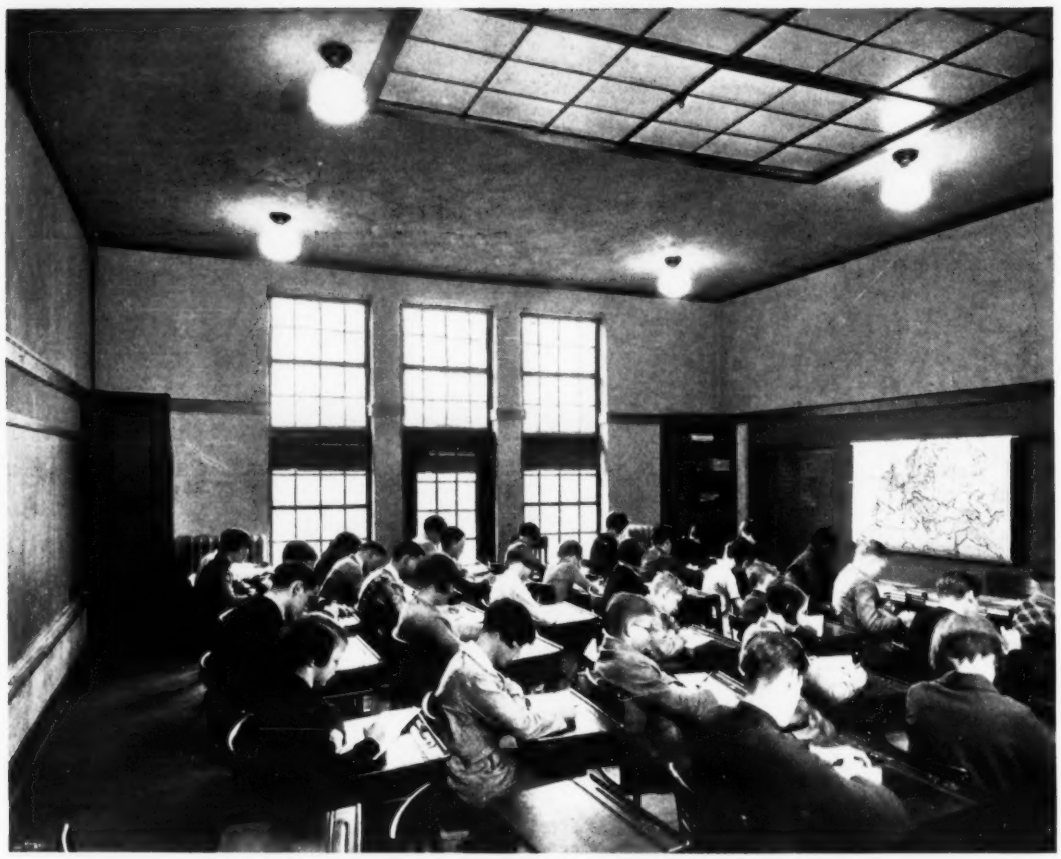
J. L. Hamilton, Archt. and W. G. Bate, Supt. of Schools

The James F. Hibberd School is the fourth unit in a program of schoolhouse building begun by Richmond in 1921. Preceding this building, the David Worth Dennis and the Julia E. Test Junior High Schools were erected in the years 1920-23. In 1925 the Timothy Nicholson Elementary School was built, this being a remodeling and addition project. The Hibberd School was begun in 1926 and completed in August, 1927. The fifth unit will be the Fairview Elementary School, planned to be ready for use in the fall of 1928. All of these buildings have been designed and supervised in construction by the architectural firm of Perkins, Fellows & Hamilton and their successors, of Chicago.

The Hibberd School has been designed to serve the needs of a large section of the city, both for elementary-school and for junior-high-school purposes. The district served for elementary-school purposes is an area approximately



JAMES F. HIBBERD SCHOOL, RICHMOND, IND.
Hamilton, Fellows and Wilkinson, Architects, Chicago, Ill.



A TYPICAL CLASSROOM IN THE JAMES F. HIBBERD SCHOOL, RICHMOND, IND.
Hamilton, Fellows and Wilkinson, Architects, Chicago, Ill.

one mile north to south, and some over a mile from east to west. To this is added for junior-high-school service a strip of territory approximately one-half mile by three fourths of a mile, adjoining the elementary-school district on the north. (See map.)

This district is in part already closely built up and is growing rapidly. Most of the homes in this district are owned by the occupants and are of the modest small-house type of workingmen's homes.

The building is located slightly east of the center of the site, with the main entrance facing the north. The building is centered on the line of South 11th Street, which forms the main approach from the north. The complete plan, as shown, provides for building on three sides of a court, opening to the north and visible from the approach on South 11th Street. At present, approximately two thirds of the building has been erected, the west classroom wing and auditorium being planned as future additions. Eventually, the west wing will accommodate the junior-high-school grades, which at present are being quartered in the what will later be elementary-school classrooms. The present construction includes 18 classrooms, a kindergarten, a general manual-training room, and a combination home-economics room. In addition to these classrooms there are a gymnasium, showers, and dressing rooms. For the present, the gymnasium is used for assembly and auditorium purposes, being equipped with a stage, and movable chairs which are stored in a chair room in the basement when not in use.

All of the present construction is one story and, with the exception of the kindergarten and domestic-science room, the lighting is by skylights. Contrary to the customary plan of arrangement for classrooms, with the exterior wall forming one of the long sides of the room, in this building the standard classroom has been arranged the other way about, so that the exterior wall is at one end of the room. This outside end of the classroom has two windows, extending from a window sill 10 in. above the floor to within 10 in. of the ceiling, with figured glass below the 4-ft. level to obscure the vision. Between the two windows is a door with glass and transom above to make it correspond with the windows. In effect, one whole side of the room is given to outside windows, in addition to providing an exit direct to the playgrounds and walks. The primary object in the arrangement is to provide a pleasant classroom, making it possible for children to look out of the windows, and at the same time to provide easy exit facilities both for fire drill and for the purpose of going directly out to the playground.

The two long walls of each classroom provide ample space for blackboard, with a cork panel above for mounting purposes. On the fourth side of the room is an inclosed wardrobe, closed off from the room with sliding doors. The room side of the wardrobe doors have panels covered with cork board, providing additional bulletin board and mounting space.

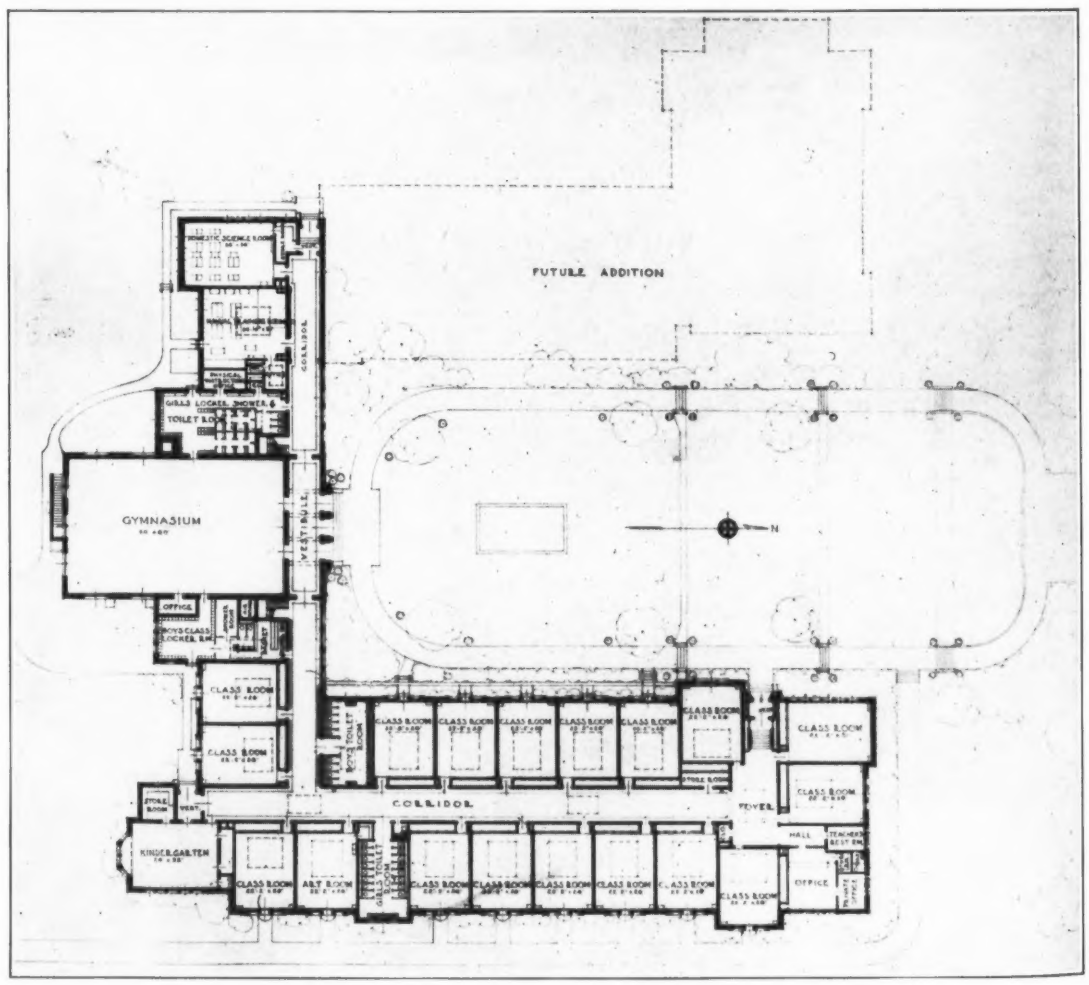
The standard classroom is 22 ft. 2 in. by 28 ft. In one corner is a five-shelf bookcase and in another corner a teacher's wardrobe. The room is designed to be used with movable furniture, although stationary desks can be used as well as in the traditional classroom. The room provides ample space for handling up to an average of 35 pupils and with movable desks may be used for any kind of classwork not requiring special equipment. The main features of the room are its light, controlled through the skylight by revolving metal sunshades, and the pleasant atmosphere gained by the large window area at the end of the room.

The kindergarten is 24 by 28 ft. with a storeroom, wardrobe, and toilet room adjoining. In this room an interesting effect has been gained by omitting the ceiling and leaving the timbers supporting the roof construction exposed. Along the side of the room are four large windows and at one end is a bay with four casement windows. The room has southeast exposure and with the bay and casement windows is unusually pleasant throughout the day.

The manual-training work is housed in a room which will eventually be a standard classroom. Like the manual-training room, the domestic-science room is designed and equipped to serve as a combination of both branches of the subject. The room is finished in smooth walls with a surface of Keene cement. There are four windows at the rear of the room and four on the left side. Adjoining the room is a pantry of good proportions, with built-in shelving and cupboards, refrigerator, and workbench.

The exterior architecture of the building has been designed in an informal expression of English rural style; using a soft-toned red brick laid in English crossbond. Bedford stone has been used for trim. All window sash are of steel and either awning type or casement style. Sit-

(Continued on Page 142)



FIRST FLOOR PLAN, HIBBERD SCHOOL, RICHMOND, IND.
Hamilton, Fellows and Wilkinson, Architects, Chicago, Ill.

The Qualifications of Teachers[1]

Ernest Bennett, Kansas State Teachers College, Pittsburg, Kans.

Character was placed above every other qualification that a teacher may have by the large majority of 531 superintendents of schools in Kansas, Missouri, and Oklahoma, who responded to a request by Kansas State Teachers' College of Pittsburg, to place comparative ratings on four points: character, personality, training, and experience. Character scored 36.07 per cent in the averaged result of the questionary, personality 24.75, training 26.22, and experience 12.96. Certain of the superintendents refused, however, to attempt any rating, saying that without any one of the first three qualifications a candidate is totally disqualified.

Character Comes First

"I regard character much as a horse judge regards unsoundness," wrote one superintendent. "Blindness or a bone spavin disqualifies a horse in any show." "A man or woman of questionable moral standards," says another, "should under no circumstances be placed on the available list. Flappers, cake eaters, etc., should never be permitted to go before students." "If there is any question about it," decisively writes a fourth, "the candidate is rejected, regardless of all other qualifications."

A sweeping declaration reads thus: "I think the crying need of education today, from the one-room schools to the universities, is for men and women with sterling character. Not the flabby, weak, nor the preaching type, but rather the virile, active type that young people see and exemplify in their lives and actions. If the character is there, personality will take care of itself."

One rates character low because a superintendent can know almost nothing about that qualification of a candidate: "Character, 10 per cent; personality, 25 per cent; training, 35 per cent; experience, 30 per cent. Perhaps you wonder that I put so low a value on character. I would put it first if one could find out the character of an applicant. It cannot be done. Character, not mere goodness, includes loyalty (professional), fairness, promptness, application, not being contentious, careful of little as well as big duties, careful of appearance, proper amount of dignity, not a gossip, tactful, etc."

The reader must decide for himself just what one of the several interesting things a certain superintendent means when he says, in commenting on the character of teachers: "Our modern educational institutions are making it hard for a superintendent to hire teachers." But, as we shall see, he is not the only executive who charges the colleges with some of the responsibility for the faults of the young teachers they turn out.

Several touch upon loyalty, that quality so closely allied to character:

"Cooperation is another big thing in rating a teacher."

"I find that the spirit of cooperation and willingness to act on the suggestions of the board and superintendent is the great factor in keeping harmony among the teachers. It makes for a better recommendation for the teacher from the superintendent to any future employer."

"Many young teachers do not know the full meaning and value of loyalty."

"One can't teach teamwork if he won't pull with the team of which he is a part."

"The teacher who fails to cooperate in the school system where he or she is placed is destructive."

"Eight years' experience as high-school principal has taught me that we may have a *Phi Beta Kappa* teacher, with an M.A. degree, a fine personality, wonderful character and a great deal of experience, who can teach bolshevism, cause dissatisfaction among teachers, etc., to such a degree that her usefulness is almost entirely destroyed."

Ignorance of Subject Matter

Some hold that the modern teacher is seriously handicapped by an ignorance of subject matter and a lack of general information. "I would suggest," writes one superintendent, "that the schools make more of an effort to tell us more of the scholastic standing and the specific training of the individual." Another writes: "I find that thorough academic training is indeed needed by most teachers. We have hobbied method to death. Boys and girls are beginning to feel that the teacher should ask the questions and give the answers, but give them high grades. Thorough academic training and high classroom standards is the remedy."

A third agrees, saying that "the greatest weakness of our teaching force is lack of knowledge of subject matter and general ignorance of public and world affairs. This is especially true of teachers of social subjects." But here is a note of warning: "For smaller schools, teachers must have a broader, more general training, so as to be able to adapt themselves to the needs of school and community where they serve. Hence, high specialization of any sort is not a desirable feature as a rule."

Moreover, to have been a thorough student in college is not in itself enough; the teacher must still study: "We want teachers who are themselves students. Too many high-school teachers depend upon their degrees and the number of college hours they have, and do not study now and make careful preparation for daily work. We want teachers here who regard their tasks seriously. Too many quit the pursuit of knowledge when they graduate. Dynamic education is what we want."

Two or three schoolmen have decided, moreover, that they cannot gauge a candidate's stock of knowledge by his college grades. "In my mind, college grades are a farce," says one, despite the fact he is answering a questionary from a college. "We feel," another says more politely, "that boards of education are at a loss to know just what the item, training, should count. Certainly the number of college hours is at present meaningless." "We want men and women," complains another, "not prodigies."

A record for student activities while in college is as desirable as a record for good grades, in the opinion of two superintendents: "We want teachers who have taken part in extracurricular activities while they were in school. We feel this gives them a much broader experience and makes them better teachers. The recommendations we get seem to be based entirely on scholastic standing."

"I should choose a teacher with a record of average college grades, who has been active in many school activities, rather than a member of *Phi Beta Kappa* with no experience in extracurricular activities."

Extracurricular Service

But another man brings the fly for the ointment: "We are getting some people who were great leaders in college extracurricular life who are not very strong in the classroom."

But whether or not the candidate has had a part in extracurricular activities while in college, he had just as well expect to do other things besides teach classes when he joins the staff of a school system. "Any teacher who thinks her schoolwork ends with the classroom instruction," crisply remarks an executive, "is a failure to begin with." Hear these others to the same effect:

"A teacher that cannot do anything but teach the second or third grade, or some subject in high school, is not worth much to a community."

"Teachers who feel responsible to their people outside of the classroom are entirely too few in number. A good Christian teacher who takes an active part in some community church is worth 33⅓ per cent more than another, her equal in all other respects."

"We want someone who wants to live with us. The suitcase teacher who leaves for the bigger town on Friday night is not needed."

There is a shortage of teachers competent to assume these out-of-class duties, one superintendent complains, and this shortage is especially marked among the men: "It seems that so many teachers are unable to coach plays, take charge of programs, prepare for social gatherings, and sponsor such organizations as Hi-Y and Girl Reserves. This is especially true of the men. As you perhaps realize, in most high schools all activities, except athletics, must be sponsored by teachers employed to teach regular subjects. My experience has been that, while many women are able to do such work, very few men are prepared for it. We must have some men who can coach plays, prepare for entertainments, etc."

"Why did you omit 'common sense'?" exclaims a superintendent who has just checked the question about knowledge of subject matter, college grades, etc. "The greatest weakness I find is the lack of ability to know when to talk and when to keep the tongue still. Too much talk at the boarding house causes a teacher to lose her influence and ability to control." Another who has evidently supervised more than one kind of teacher, says he prefers "teachers with 'horse sense' to those with degrees and lacking it." "Common sense," writes a third, "is one of my chief requisites." If all teachers had this fundamental requisite, a fourth superintendent probably would not have had to record that he has "had more teachers fail on account of social indiscretions than for any other reason."

The Born Teacher

The best teachers are, of course, a combination of inherited characteristics and of thoroughly trained powers, with so much stress on what is inherited, that one superintendent confesses to a belief "that teachers as well as poets are born, not made." Some stress personality, chiefly an inborn sum of characteristics which "include the vividness and forcefulness which create interest, respect, and loyalty involuntarily and without appreciable effort." They maintain personality is a fundamental part of a teacher's equipment, given which, the rest is fairly simple:

"I rarely ever worry about the teacher who possesses clean character, positive personality, and proper training."

"I have found that people with an attractive personality and a fair knowledge of subject matter generally make good."

"Give me an individual with character and training and a good personality, and I am not afraid of the success the person will make in teaching."

But as personality often seems a gift of heaven itself, it may be comforting to note that one superintendent stresses those qualities and attitudes which any intelligent person can culti-

[1] The data on which this paper is based were gathered by the committee on recommendations at Kansas State Teachers College of Pittsburg, a committee consisting of Professor D. M. Bowen, chairman, Dean Hattie Moore Mitchell, Dean G. W. Trout, Professor A. H. Whitesitt, Professor Agnes Saunders, and S. L. Householder, executive secretary.

vate. "I have always got the best results from teachers who have made medium grades in college, who took a serious attitude toward their work in teaching, and who did their best to follow instructions. The public seems to want this same type of teacher."

The embarrassing thing about a superintendent's search for teachers who have these qualifications is that "one cannot find out these points from testimonials. A preacher's is worth the least, as I have discovered. Personality is loudest on first meeting a person.

"I think I express the opinion of most superintendents when I say that fully 50 per cent of the recommendations are useless and not to be considered. Too many people can always write a recommendation that would find a place for a prospect, but if put to the test of employing a prospect themselves, their recommendation would not hold good."

Two or three executives are not so pessimistic. One merely objects to blanket recommendations: "No 'to whom it may concern' recommendations considered. General statements of no value in a recommendation."

Another writes: "In employing teachers, references from those who can speak with definiteness in regard to qualifications are required and considered."

This is the kind of reference preferred: "A good recommendation from a former superintendent takes precedence. Not much weight given to a recommendation from a board member, since the board may be divided in its opinions of teachers. Length of service in one place sounds good, but needs investigation."

Value of College Recommendations

If a preacher's recommendation has little weight, so has, for certain superintendents, that of a college professor. One complains: "We have been fooled by stock recommendations put out by certain colleges. We want men and women, not prodigies."

Another is even more severe: "Recommendations by college instructors in about 50 per cent of the cases are useless, and mean little."

The reason, one man explains, is that there are certain facts in regard to their students about which a professor can have little or no information: "I realize that it is difficult for a teachers' college to ascertain the above characteristics in any teacher. In my opinion, that is one reason why college professors' recommendations are given very slight consideration in the employment of teachers. Often I have received numerous splendid recommendations for an applicant, only to have a superintendent tell me, over the telephone, that I didn't want the teacher, and I immediately knew the reason why. It is something which is very subtle and is very seldom mentioned on paper concerning a teacher, and if your school can do anything, as a school, to awaken in your teachers, professional ethics which will carry through their entire work and life, it seems to me that you will be doing as great a work as teaching them the details of classroom instruction. I assume that this report is confidential."

One opinion, however, to the effect that professors' ratings of their students have real value is expressed thus: "I know a good teacher the minute I meet him. I am careful in my selections to get all the credentials in mind before the interview. The colleges make it easy in the selection of teachers by furnishing recommendations from faculty members who have observed the candidate in action."

But as some are not content with the kind of recommendations college professors write, others are not content with some of the graduates the professors authorize to teach. Their complaint strikes at the teachers' college as well as others. It seems to indicate the necessity of raising the standards for practice teaching in these colleges, of a stringent holding of practice teachers to the ideals which alone can bring success in the field—a development which is already taking place at Kansas State Teachers' College of Pittsburg. But as to the complaint: "We have many college graduates who are not teachers and no amount of experience would make more than a counterfeit of them."

"The teachers' colleges are graduating some people who are not at all competent. This is not general, but there are enough of them to make it difficult for competent teachers to get positions in the smaller towns."

"My experience with the average teachers' college graduate is that they come to us without the slightest idea of classroom discipline; without an idea of orderly, businesslike classroom procedure; and with no very conscientious purpose of accomplishing the educational aims of the curriculum. They come from loosely conducted college classes and carry on our high-school classes in the same manner. They apparently strive for the popularity of the pupils rather than for their respect. They are bringing to the colleges the spirit of 'just getting by.'"

After perusing all these opinions, one is convinced that, no matter how much the art of teaching and its related sciences may yet develop, the fundamental truth will always be as it has always been—that it takes more than a college to make a teacher. Prerequisites, it seems clear, are a sound family stock and a good home during the early years, issuing in that essential manhood and womanhood without which the high school and the college have nothing to build on.



CHESTER F. MILLER,
Superintendent of Schools-Elect,
Saginaw, Mich.

Mr. Chester F. Miller, superintendent of schools of Galesburg, Ill., on March 3 was elected superintendent of schools at Saginaw, Mich., to succeed Harold Steele. Mr. Miller was chosen from a list of 64 candidates, 35 of whom were given personal interviews. In the selection of the successful applicant, three main qualities were kept clearly in mind: First, training and experience to meet professional requirements of the school system; second, training and experience to keep in close touch with the business side of the school system; and third, personality, the quality which one must have to meet a whole field of indefinite requirements. Mr. Miller was elected for a term of three years, bginning July 1, 1928.

Mr. Miller is a graduate of McKendree College, and Teachers College of Columbia University. He has filled a number of supervisory positions, and has been superintendent of schools at Galesburg for the last six years. Mr. Miller holds degrees given by McKendree College and Columbia University. He is the author of a number of educational books and is a frequent contributor to the educational periodicals.

The Working Schedule of the Superintendent of Schools

A Pertinent Discussion of the Superintendent's Use of Time in School Administration

Mr. Ralph K. McGee, superintendent of schools at Lenox, Iowa, has recently shown in a study of the working schedule of town and village superintendents that these school officers spend more time than is necessary in doing relatively trivial work. While they fully appreciate the importance of the six major functions of the superintendent—teaching, clerical work, administration, supervision, professional study, community leadership—the public makes demands upon them which results in ill-balanced work schedules.

Discussing the results of his study, Mr. McGee writes, in part, as follows:

The results obtained from the study are taken mainly from the questionary which was sent to superintendents of schools in all towns of from 1,000 to 2,000 population, in the states of Iowa, Nebraska, and Colorado.

TABLE I. Comparison of time distribution of 110 superintendents in three states in the theory and practice of the six major functions.

Function	Practical Time Distribution in Median % of Time	Rank	Theoretical Time Distribution as Given by All Superintendents	Rank	Theoretical Time Distribution as Given by University Professors	Rank
Teaching	25.00	2	13.21	3	13.42	3
Clerical	15.71	4	11.53	6	10.60	6
Administration	26.04	1	27.27	2	24.70	2
Supervision	21.25	3	31.30	1	32.90	1
Professional Study and Growth	9.09	6	12.93	4	13.24	4
Community Leadership	10.46	5	12.45	5	12.20	5

One of the most striking things shown is the fact that the superintendents as a group agree very closely with the consensus of opinion of university professors as to the ideal time allotment for the six major functions of the superintendent. (Table I.) This serves to indicate that as a group, superintendents realize the relative importance of their functions.

In spite of this realization, it is found that in practice, the superintendents as a group are spending too much time in the functions which take relatively less skill and less professional training. Too much time is being allotted to teaching and clerical functions at the sacrifice primarily of the function of supervision. Professional study and growth, and community leadership, also suffer on account of teaching and clerical duties which receive undue attention. This unbalanced time schedule results not only in loss of efficiency to the school system, but in a financial loss to the patrons of the school. That is, teachers and office help may be hired at $100 to $150 per month to do much of the work which the superintendent, who is paid on an average of $300 per month, now performs.

Only 34 of 110 superintendents, or 30 per cent of the whole group, have any office help whatever. Most of these indicated that it was student help from the commercial departments. The median length of time per day for which the 34 superintendents have office help is four hours. Seventy-six, or 69 per cent, of the men do all their own office work.

Forty per cent of the superintendents, according to Mr. McGee's study, make some attempt to budget their time. Most of them stated this was merely an attempt, and that it was practically impossible for them to follow their budget. The other 60 per cent evidently do not make any effort at a systematic, regular time distribution. The truly efficient superintendent

(Continued on Page 144)

Index of School-Bond Prices[1]

Harold F. Clark, Indiana University, Bloomington, Ind.

The average yield on all school bonds sold during the month of March was 4.18 per cent. This is a drop of .08 of one per cent from the February rate. As compared with recent months, this is a large decrease. Going over the months just past, it is not until we reach the October-November 1927 drop that we find as large a decrease in any one month. School-bond sales for the first quarter of 1928 are only about 70 per cent of the sales for the first quarter of 1927.

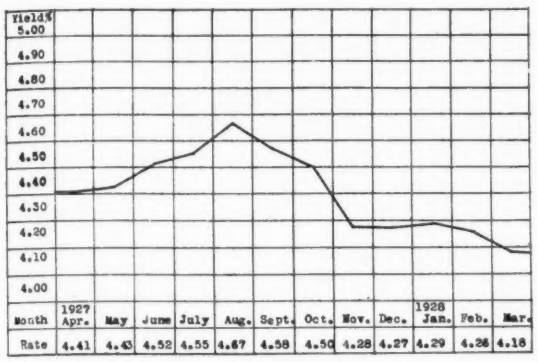


TABLE I. Average Yield of All School Bonds Sold During the Month.

During the last of March and the first of April, there was a rise in the call-money rate. This may indicate some temporary tightening of money and a rise of other interest rates. Whatever happens to the interest rates in the next few weeks, there is an almost unanimous agreement among financial authorities that the next few months will see still lower interest rates. Many writers point out that the vast and rapid increasing savings of America must be invested. For that reason, they say that we must begin to think of lower returns on all kinds of invested capital.

TABLE II
Amounts and Yields of Bond Issues[2]

	March, 1928
1. School bonds so'd during the month	$ 18,854,360
2. All municipal securities sold during the year (to date)	338,430,775
3. All school bonds outstanding (estimated)	3,322,000,000
4. Average yield of all school bonds outstanding (estimated)	4.66%
5. Yield of school bonds of the ten larger cities sold during the month	3.95%
6. Yield of United States long-term bonds (Quotation the middle of April)	3.19%

[2]The monthly total of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yields on some of the issues.

[1]Copyright by Harold F. Clark.

With some popular common stocks on the stock exchange selling to yield less than 4 per cent and our school-bond index standing at 4.18 per cent, we may expect school bonds to sell at lower interest rates. In fact, it would not be surprising if our school-bond index went below 4 per cent in the next few months. With lower interest rates almost a certainty, it behooves the school man issuing school bonds to be in a position to take advantage of them. As was suggested last month, this means among other things that school bonds should be callable, so that when interest rates do fall, the bonds may be called and other bonds bearing lower interest rates issued. Our estimate is that the average rate of interest being paid on all school bonds outstanding is 4.66 per cent.

If the bonds could be called and reissued at the average rate of interest for the past month, which is 4.18 per cent, there would be an annual saving in interest of over $16,000,000. As the interest rate is likely to go lower than 4.18 per cent, if the bonds were refunded at the lower rate it would mean even a larger saving.

A feature of the school-bond index which we are developing very rapidly is the state indexes. These indexes show the yields of all school bonds sold in each state. The state indexes bring out some interesting facts regarding the effect of laws on the selling price of school bonds. Two adjoining states, similar in wealth and general economic development, may have very different average rates on their school bonds. The state indexes may ultimately afford some objective check upon desirable kinds of laws and regulations governing the selling of school bonds.

As usual, we call attention to the high and low yield for the month. The average yield of all bonds sold during the month of March set a new low record; also, one issue sold .04 of one per cent lower than any issue in February. The low issue in February sold on a 3.54 per cent basis and in March the low issue sold on a 3.50 per cent net interest basis. The high issue sold at slightly over 6.20 per cent. For the second consecutive month the low issue was in the middle west. The high issue was in Florida. Some city should establish a new low record next month.

TABLE III

Year	Bond Sales[3] School	Municipal	All Public and Private
1927	$274,000,000[4]	$1,450,000,000[4]	$7,735,000,000[4]
1926	260,000,000	1,365,000,000	6,311,000,000
1925	323,000,000	1,399,000,000	6,223,000,000
1924	288,000,000	1,398,000,000	5,593,000,000
1923	208,000,000	1,063,000,000	4,303,000,000
1922	237,000,000	1,101,000,000	4,313,000,000
1921	215,000,000	1,208,000,000	3,576,000,000
1920	130,000,000	683,000,000	3,634,000,000
1919	103,000,000	691,000,000	3,588,000,000
1918	41,000,000	296,000,000	14,368,000,000
1917	60,000,000	451,000,000	9,984,000,000
1916	70,000,000	457,000,000	5,032,000,000
1915	81,000,000	498,000,000	5,275,000,000
1910	42,000,000	320,000,000	2,400,000,000

Year	Average Rate at Which Bonds Were Sold Municipal
1927	4.47[4]
1926	4.61
1925	4.58
1924	4.26
1923	4.76
1922	4.81
1921	5.18
1920	5.12
1919	5.04
1918	4.90
1917	4.58
1916	4.18
1915	4.58
1910	4.38

[3]By special permission based upon sales reported by the Commercial and Financial Chronicle.
[4]Not final.

TABLE IV
Average Yield of Long-Term Federal-Government Bonds[5]

Past Twelve Months Month	Rate %	Past Five Years Year	Rate %
1928		1927	3.464
April	3.19[6]	1926	3.544
March	3.17[6]	1925	3.797
February	3.36	1924	4.010
January	3.35	1923	4.298
1927		1922	4.301
December	3.34		
November	3.39		
October	3.43		
September	3.44		
August	3.45		
July	3.48		
June	3.47		
May	3.44		

[5]Taken from the Federal Reserve Bulletin.
[6]Calculated from the New York Stock Exchange quotations and not the final Federal Reserve Board average.

TABLE V
Security Prices[7]

Date	Average Price of 228 Stocks	Average Price of 60 Bonds
1928		
April	216.0[8]	100.4[8]
March	193.8[8]	100.2[8]
February	191.9[8]	100.1[8]
January	195.6	100.3
1927		
December	196.5	100.0
November	189.	99.7
October	186.2	99.6
September	191.1	98.00
August	179.3	97.76
July	171.7	97.03
June	168.5	97.06
May	167.5	97.55

[7]As reported by the Standard Statistics Company, Inc. Used by special permission.
[8]Not final.

TABLE VI
Revised Index Number of Wholesale Prices[9]

Month	Past Twelve Months All Commodities	Building Materials	Past Five Years Year	All Commodities	Building Materials
1928					
April	96.7[10]	91.3[10]	1927	95.4	93.3
Mar.	96.6[10]	91.2[10]	1926	100.	100.
Feb.	96.4	91.0	1925	103.5	101.7
Jan.	96.3	90.8	1924	98.1	102.3
1927			1923	100.6	108.7
Dec.	96.8	90.4			
Nov.	96.7	90.2			
Oct.	97.0	91.6			
Sept.	96.5	92.1			
Aug.	95.2	92.9			
July	94.1	93.7			
June	93.8	94.6			
May	93.7	95.1			

[9]United States Bureau of Labor Statistics, 1926=100.
[10]Not final.

—A recent report of the Children's Bureau of the U. S. Department of Labor shows that, at the beginning of 1927, there were 28 sight-saving classes conducted in the state of Massachusetts for children with defective sight. These classes were located in fourteen different cities. In addition to these, four more cities have made arrangements for the opening of classes. The division of the blind of the state education department grants state aid to the amount of $500 annually to each class established, and supplies each new class with $250 worth of equipment. There are 290 sight-saving classes in operation in the entire United States.

SCHOOL-BOND SALES AND SCHOOLHOUSE-CONSTRUCTION CONTRACTS FOR 1925-1928

Month	1925 School-Bond Sales[1]	1925 CONTRACTS LET[2] Sq. Feet	1925 Value	1926 School-Bond Sales[1]	1926 CONTRACTS LET[2] Sq. Feet	1926 Value	1927 School-Bond Sales[1]	1927 CONTRACTS LET[2] Sq. Feet	1927 Value	1928 School-Bond Sales[1]	1928 CONTRACTS LET[2] Sq. Feet	1928 Value
Jan.	$ 28,931,323	2,034,000	$ 13,595,000	$ 54,022,531	2,245,200	$ 13,346,200	$ 27,028,616	2,376,000	$17,012,500	$16,275,161	3,498,100	$23,369,400
Feb.	30,761,773	3,322,000	17,772,000	49,014,450	3,114,200	20,721,500	18,501,650	3,009,800	22,045,400	20,952,450	3,157,400	18,650,500
March	22,468,500	5,209,000	40,541,000	16,265,292	4,000,100	29,079,700	30,906,289	5,997,800	36,521,800	19,995,366	5,316,300	33,881,000
April	25,305,540	4,762,000	30,972,000	25,982,876	5,094,500	38,480,200	19,825,233	4,808,300	35,678,100	.....	.....	.....
May	108,375,192	4,079,000	25,775,000	34,431,553	6,610,500	39,709,700	44,210,460	5,346,900	34,545,100	.....	.....	.....
June	28,901,150	9,001,800	64,584,800	25,329,245	6,015,600	40,753,400	23,083,337	5,675,600	42,121,800	.....	.....	.....
July	24,196,675	7,644,500	57,672,000	28,918,050	6,067,900	42,015,800	23,635,536	5,466,300	36,433,600	.....	.....	.....
Aug.	21,588,754	5,246,200	33,667,200	17,970,298	5,469,000	42,124,000	16,997,680	5,937,800	41,035,200	.....	.....	.....
Sept.	25,655,944	4,744,100	35,217,300	12,874,224	4,865,100	34,531,600	30,869,480	4,268,700	29,243,700	.....	.....	.....
Oct.	26,313,830	3,936,800	28,192,000	19,991,266	3,516,600	23,556,700	26,053,600	4,171,200	30,169,600	.....	.....	.....
Nov.	24,673,250	3,156,700	22,048,100	17,395,423	4,711,500	34,571,800	26,898,416	4,684,900	31,741,300	.....	.....	.....
Dec.	30,098,325	3,407,400	31,645,500	30,605,382	2,854,500	22,177,600	28,168,175	3,736,200	33,247,600	.....	.....	.....
Totals	$397,270,256	58,799,900	$423,203,700	$332,800,590	54,564,700	$381,078,200	$316,178,472	55,474,500	$379,795,700	$57,222,977	11,971,800	$75,900,900

[1]Advertised School-Bond Sales.
[2]Dodge Figures.

THE AMERICAN
School Board Journal

WM. GEO. BRUCE
WM. C. BRUCE } EDITORS

EDITORIAL

SCHOOL ADMINISTRATION — RETROSPECTIVE AND PROSPECTIVE

The tendency in American school administration during the past decade has been in the direction of expansion on the one hand, and economic adjustment on the other. The expansion has in the main been due to the shift of apprentice preparation from the factory to the school, to a greater emphasis upon the physical welfare of a pupil constituency, and to the general desire to diversify and measure educational service. Thus, the vocational and junior high schools have come into being, medical examination of pupils has come into greater recognition, and more and better schoolhousing has been the order of the day, while educators have become more intense in scope and purpose.

The splendid march of progress inspired by the professional workers has also demanded greater attention to economic considerations. School budgets have mounted, and while the administrative factors have sought to meet every legitimate demand, they have also had to deal with an exacting taxpaying public. Here new approaches and attitudes have been effected. Greater frankness as to plans and purposes, absolute candor as to needs and deeds, and a closer relation between administrator and taxpayer has been established. And all with the result that the public has generously responded to the call for a more liberal school support.

On the other hand, the professional factors have been fully alive to the economic considerations as far as these affected the general progress of educational effort. The shift in the cost of living made it necessary to seek a better compensation for the professional workers. The demand for competent leadership in the field of popular education, and for an efficient army of schoolroom workers, compelled better salaries. The school administrator wisely adopted the policy of exacting high-class service, and paying the price.

While this policy has turned an acute teacher shortage through the country into an acute teacher surplus, the school administrators have not applied the supply-and-demand rule in the adjustment of salary schedules. The dictum has been that the salary schedules must stand if higher standards are to be attained or maintained.

Speaking in prospective terms, it may be said that while educational expansion may continue at a lesser rate, the general momentum of educational effort will continue at top speed. The introduction of surveys of schoolhousing will serve as guideposts for building programs and prompt administrators to anticipate needs and provide for them, rather than to wait until these needs have become acute and embarrassing.

If school administration, as such, has experienced any improvement in the recent past, it must be found not only in the fact that it has assumed a more equitable attitude toward the professional factors, but also in the growing tendency to approach financial problems with greater circumspection and a proper anticipation of the needs of tomorrow.

The economic status of the country at large has some bearing on school costs. The general operation of the school is usually not impeded by periods of depression, but such periods have the tendency to delay new departures and undertakings involving the expenditure of public moneys. The prospects for the ensuing year are promising, and the prosperity which the country enjoys at present is likely to continue for a time. Thus, it is safe to say that the school administrators will continue to plan new projects in keeping with the school demands of the day and in furtherance of the ambitions and aspirations of the American community to excel in schoolhousing and in the educational labors performed therein.

THE TEACHER SURPLUS AND THE RAISING OF STANDARDS

Eight years ago the country was confronted with a teacher shortage. Today there is a teacher surplus. The shortage prompted a stiffening of salaries, which has since attracted greater numbers to the profession. The immediate effect is that approximately 100,000 trained teachers in this country are out of positions, and that school administrators here and there are suggesting a reduction in salary schedules.

The educational leaders have been somewhat reluctant to admit the full extent of the surplussage of teacher talent, but in many instances have set their minds to the question of relief. In New York City, for instance, where something like 6,500 teachers are out of employment, several expedients have been offered. These include a wider use of the substitute-teacher service, a more liberal grant of the sabbatical year, and an effort to find employment for teachers in other fields of work. Similar expedients have been suggested in other centers of population. One of the immediate effects of the teacher surplus, thus far noted, is a closer adherence to the unwritten rule exerted by school administrators which favor local as against nonresident-teacher talent.

The several expedients thus far proposed will, however, have but a slight bearing on the real issue involved. The employed teacher will not care to step aside for any number of days and thus make a sacrifice for the unemployed teacher. The attempt to crowd more teachers into the service by reducing the size of classes will not find favor with the boards of education. To find employment for teachers outside of the school system is laudable but hardly within the province of the school authorities.

The issue resolves itself to one of supply and demand. The institutional facilities for the preparation of teachers are overequipped. The production has been greater than the consumption; the supply of teachers greater than the demand. The adjustment between the two must and will be found. In fact, it will require no particular warning to any one against entering an overcrowded profession.

The suggestion that the supply be regulated through a reduction in salary schedules cannot consistently be entertained. The schools cannot profit in this manner by an oversupply of teachers. They can only employ a certain number. Furthermore, they can only profit by exercising a wider choice in the selection of teacher talent.

The solution of the problem must be in the direction of higher standards rather than lower salaries. If the schools of this country are afflicted with a percentage of incompetents, then the time to weed them out has come, and the educational leaders should become definite and decisive on this point. With the prevalence of unemployment in other fields and the tendency of a lower wage scale, it is only reasonable to assume that this tendency will be reflected in the field of school administration. The effort in the direction of higher standards will stem the tendency to lower salary schedules.

By exacting more thorough preparation, lengthening the teacher-training courses, and practicing a finer discrimination in the selection of teacher talent, the standards will be raised. It is the only way that an unfortunate situation can be turned to the advantage of the nation's system of popular education.

PROGRESS IN EDUCATIONAL CONVENTION PUBLICITY

With the growing popularity of educational gatherings and their constant increase in attendance, the matter of publicity has also assumed definite and gratifying form. Educational associations have established publicity bureaus through which advance news matter is given to the press. Pertinent extracts from addresses and the more important of the official departures are released for publication. The newspapers that wish to inform their readers on the more interesting phases of an educational convention are amply provided with material. At least they cannot complain that the school authorities do not supply them with news matter.

The National Education Association has set the pace in the right direction. It employs a competent press agent who gathers extracts of the several addresses and who knows exactly where these ought to be placed. It proceeds upon the thought that the newspaper reporter is a busy man, who has neither the time nor inclination to wade through a mass of manuscripts in order to lift out the more acceptable paragraphs.

It must be conceded that there is much in the addresses and the deliberations of an educational convention which does not interest the general reading constituency. Then, too, the average newspaper man who reports the proceedings of an educational gathering will dwell upon the unusual and unimportant rather than upon the significant and important. A wordy encounter, spiced with sarcasm and bitterness, will be more acceptable to him than the finest thoughts on modern educational effort. But, much readable and instructive matter is also produced. This matter must be made readily accessible to the newspaper which must do its work under a pressure for time.

Cities of the size of Seattle, Denver, and Minneapolis will give an educational meeting of national scope front-page prominence, and a fairly complete report of its various doings. The larger cities are less inclined to liberal publicity. Besides, in the multiplicity of large city news matter, the doings of an educational convention are frequently regarded as a minor affair. On the other hand, the newspapers in the smaller cities cannot afford to grant the space to which the deliberations of an educational body may be entitled.

On the whole, however, it remains that if educational gatherings are to be properly recognized by the public press, an effort must be made to assist the newspapers in securing acceptable publicity material. The educator who would promote such publicity must think in terms of the newspaper man, recognize the exigencies that go with the publishing business, and stand ready to lend a helping hand.

It needs no argument to hold that the deliberations of school administrators and classroom workers should be presented to the public as one of the means of commanding interest in behalf of popular education. The public is called upon to support the schools, and if that support is to be continued to the extent deserved, then it follows, too, that favorable publicity must be employed whenever the opportunity is afforded.

DO THE SCHOOLS RECEIVE THE BEST ARCHITECTURE?

The chief characteristic in the development of American architecture is best found in the effort to give new forms of expression to old-world models and in finding a more definite adjustment between beauty and utility. The pioneer structures of this country were in the main, clumsy and unsightly, because expediency and immediate necessity controlled their creation.

Thus, the school buildings of the preceding decade, in their struggle for imposing design, were not only unsightly but uneconomic in construction. The towers and high-backed roofs not only gave the whole a clumsy appearance, but as time went on became the cause for vexatious repair bills. The architect of that day had not combined simplicity of outline with dignity in design. The approach to the building of a schoolhouse was almost wholly from the construction side and the architect's viewpoint. He dealt in dimensions and spaces in the light of cost and from the standpoint of the personal preferences of those who bought his plans.

It was not until the approach to a school structure was made from the school-housekeeping side that real progress in school architecture was made. The architect had to become a schoolmaster, and the schoolmaster an architect, before the truly utilitarian in school architecture was evolved. Incidentally, public taste had risen a few notches and there were those among the citizens, who could distinguish between the ugly and the ornate.

Thus, it may be said that, while architecture has had a magnificent development in the United States, the modern-school building on the whole expresses the highest achievement of that art. The American architect, owing somewhat to the year-to-year demand for new school structures, but largely to his closer affiliation with the school factors, has brought the most perfect types of school buildings into being.

It is safe to say that the modern school building of this country not only expresses the best thought in architecture as an art, but also combines in the highest measure the elements of dignity in design with utility in orientation. Moreover, the genius of the engineer has found eloquent expression in the construction and equipment of school buildings, and no class of structures combines in a more complete manner the achievements of science in the direction of safety, convenience, and comfort.

SOME TAX CONSIDERATIONS AND THE PROBLEM OF SCHOOL SUPPORT

The subject of taxation and its re'ation to school support has frequently been discussed in these columns. We have held that the ultimate remedy for a defective system of taxation must be found in the acceptance of the income-tax idea. The point made here is that the property tax, as exemplified in this country, has become an obsolete instrument, and that "the ability-to-pay" principle is more equitable and successful as a revenue producer. Hence, the effort to secure adequate support for the schools where it is impossible under the property tax must be directed toward a reformation of the present tax system.

But, a radical change in the system of taxation, as now administered in the several states, is not so readily accomplished. A wider knowledge of the science of taxation must be disseminated. A better grasp of the subject in its essential features must be had.

In the meantime the property tax must serve while its more glaring imperfections must be eliminated. This by no means implies that it can ever be made truly equitable and serviceable, but it does mean that the grosser inequalities and inconsistencies are subject to correction.

We frequently hear of complaints to the effect that property values are not listed upon the hundred-per-cent basis. A case of a Pennsylvania population center which is before us, demonstrates that for fifteen years the assessed values at that point have been kept down to sixteen per cent of actual value, and never above one third of that value.

The common answer to a situation of this kind is that if the assessed valuations are uniform throughout it makes little difference whether the rate is thirty per cent or one hundred per cent of true value. No one is hurt thereby. All depends upon the actual rate of taxation that is applied to the assessed valuations.

That is all true enough, but the problem goes a little deeper. To begin with, where the valuations are fixed at less than one hundred per cent there is apt to be a variation all the way from sixteen to sixty per cent. In such cases a fixed standard is seldom adhered to, whereas when the hundred-per-cent basis is fixed it affords a clearer index to discrepancies or inequalities.

But, there is another phase which should be borne in mind, and that is the question of debt limits. These are based upon the total valuation of the tax unit. Where the assessed valuations depart from the true value, the debt limit falls accordingly. Here it is by no means argued that anyone desires to raise the debt limit, but it should be known, in order to consider a proper school support, what the true tax ability of the community is. It cannot and will not be established with any degree of equity where the assessed valuations lack the element of uniformity.

It is here not so much a question as to whether a community taxes itself adequately as it is a question whether it taxes itself equitably, namely, in an observance of that uniformity which brings all taxable property upon the rolls in accordance with their true value.

Thus, if school support must depend upon the prevailing property tax, then it follows, too, that such tax must be administered uniformly and equitably. And here many corrections are in order.

ARE CERTIFIED CHECKS AN ESSENTIAL IN SCHOOL CONTRACT BIDDING?

It has long been the custom for authorities, intrusted with public projects, to exact some sort of assurance that the successful bidder will in due time enter into formal contract. The customary method is to exact a check, certified by a reputable banking house, and to hold the same until the contractual documents have been passed and approved.

In recent years the wisdom, and more particularly the fairness, of the certified check method has been brought into question. Public officials have not always been considerate of the bidders' side of the case, and on the other hand the bidder, who is anxious to get business is not in a position to dictate terms. At the same time, he may have provided a certified check at a considerable sacrifice to himself. It may have involved a loan from the bank upon which heavy interest charges are exacted. He may be financially sound and yet lack the ready cash.

Instances come to light every now and then where the letting of contracts is postponed, even after bids and certified checks have been deposited. Delay adds to the bidders' costs of doing business. Again custodians of checks deposited as a guarantee of good faith are liable to be negligent. An instance recently came to light where a school secretary of a large western city took six months before he returned the bidder's checks and then only after exposure was threatened. Without question, the case cited here, is an exception to the rule. A school official, however, financially embarrassed may be tempted to jugg'e funds. Fortunately, school administrative circles are comparatively free from misappropriation and manipulation of funds.

The question, after all, is whether the certified check system is really equitable and practical. The authorities awarding contracts simply want some form of assurance that the successful bidder will carry out his part of the agreement. Hence, the certified check which represents just that much actual cash.

But, another form of guarantee has come into use which takes the place of money. It is the modern surety bond issued by a reliable corporation organized to render just that kind of service. The certified check idea is fast becoming obsolete. There are school units that still demand them, but the surety bond method is deemed more equitable and practical.

In this connection it may be well to mention that in private business, thousands of contracts are awarded daily involving millions upon millions of dollars without the intervention of either a certified check or a surety bond. Those who award contracts know with whom they deal or want to deal. It, therefore, seems equally superfluous to exact guarantees, for instance, from a reputable producer or distributor of school supplies.

The school authorities have gradually adopted the methods and customs which apply to the channels of commerce and industry, and have gradually shed the incumbrances which obstruct, rather than expedite their business relations. The certified check is one of the things that is rapidly being eliminated.

ARE SCHOOL TEXTBOOKS WELL MADE?

It is not claiming too much to hold that the school textbooks produced in this country are not only the most advanced in authorship, but also the best in point of typographical makeup. No other country produces more utilitarian and attractive schoolbooks.

This is, primarily, due to the progressive tendency of the teaching forces who write the textbooks used in the schools, and the enterprise of the book publishers. The ambitions of the former and the competitive spirit of the latter has proved a boon to American education.

The question has, however, been asked recently whether the popular schoolbooks of the day are all they ought to be, not only in ordinary durability, but more particularly in that wear and tear to which they are subjected. The Educational Survey Society has sought the answer to this question and has come to the conclusion that school textbooks are the best-made books in use in the United States today.

"The reason? Because they have to be," says the survey report made by the Society. "Schoolbooks receive about 500 per cent harder usage than the ordinary book used in the home and much harder usage than books in law offices and in public libraries. Bindings on schoolbooks must be made to stand unusually hard wear and tear. Many instances were found where schoolbooks have been used by as high as ten members of the same family, including two or three generations. Not only must schoolbooks be prepared carefully in advance to give the student the best knowledge in the quickest length of time, but they must be made to stand rough-house treatment, because they are frequently called upon to act as substitutes for footballs and baseballs."

That same enterprise, which seeks out competent authorship and typographical excellence in schoolbook production, also, brings to its service that mechanical genius which makes for durability in practical use. The publishers have recognized the fact that, in addition to its literary merits, tough paper and strong binding constitute essential factors in the making of a schoolbook.

The Functions of the School Superintendent in Theory and Practise

The Theoretical Allotment of Time to Each Function

Cecil Leonard Hughes, Assistant Professor of Education, University of Washington

In selecting names for a questionary of this phase of the problem, an attempt was made to pick only those professors of education who were actually engaged in teaching school administration. The inquiry addressed to 98 professors, was returned by 61 men, of whom only three indicated that they were not sufficiently informed to make their replies valid. Of the 58 replies used in this study, a school department, or college of education of 32 of the 48 states and the District of Columbia, are represented, including all the larger and more important universities. It is believed that the opinions represent rather well the educational thought of the country as a whole.

1. The purpose of this questionary is to determine the functions of the small community superintendent in theory. In order to define "small community" we have taken three methods of measurements: School population, i. e., total enrollment ranging from 100 to 600; community population 490 to 2,500; number of teachers employed 5 to 25.

2. If the following list of functions is incomplete, please add others on the line provided for that purpose. After you have done this, please make a distribution of 100 points over the list, weighting each item according to its importance. For example: If you think 25 per cent of a superintendent's time should be taken up by administrative duties as listed below, place 25 before *A*; if 15 per cent should be given to clerical work place 15 before *D* and so on until you have weighted each, the total not to exceed 100 points.

..... A. *Administration*: (Which includes these points or others you may see fit to add.) Executive officer of the board; recommend hiring and dismissal of teachers; assign and transfer of teachers, attend board meetings; suspend pupils; prepare courses of study; recommend textbooks; hold teachers' meetings; hear complaints of parents; fill temporary vacancies; supervise janitors; care and inspect school property; cases of "discipline" management of activities, i. e., playgrounds, athletics, plays, etc., preparation for school assemblies, programs, etc.

..... B. *Professional Study and Growth*: Keep informed of school conditions elsewhere; visit other schools; attend educational conventions; read educational journals; confer with teachers about their problems and help to solve them; study the bulletins of the United States Bureau of Education and other publications; personally conduct research on school problems, etc.

..... C. *Teaching*: Regular classes in high school; regular classes in elementary; substitute in either; prepare for these classes, etc.

..... D. *Clerical*: Keep record of teachers' work; monthly or annual reports to the board on school conditions; reports to state and county superintendents; answer inquiries and questionaries; write notices to teachers, pupils, and parents; receive and care for new stock; write requisitions for supplies, etc.; all types of correspondence relating to the school and its administration, etc.

..... E. *Supervision*: General supervision of all classes in the school; supervision, promotion, and demotion of pupils; advise teachers; evaluate teachers; conduct experiments with aid of teachers; give demonstration lessons; give standard tests; improvement of teachers and teaching, etc.

..... F. *Community Leadership*: Attend and take part in men's clubs, commercial, community, or welfare organizations; assist in organizing such clubs if there are none; promote the making of community surveys; confer with citizens relating to community needs; organize parent-teacher association, etc.

..... G. .....

The theoretical distribution of per cent of time over the six functions of the superintendent, as enumerated in the questionary, is shown by the following table:

TABLE V. The Theoretical Time Distribution Over the Six Functions of the Superintendent as Given by 58 University Professors

Function	Distribution of Time in Per Cent												
	0 to 4	5 to 9	10 to 14	15 to 9	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 65
Administration			4	9	17	11	7	5	3	9	2		
Professional Study and Growth		7	34	11	5	1							
Teaching	12	4	19	10	7	4	1	0	1				
Clerical	1	25	25	7									
Supervision			1	7	7	16	7	5	7	2	10	1	1
Community Leadership	1	17	25	12	3								

It will be noted that 17 of the 58, or nearly 30 per cent, believe the superintendent should devote 20 to 25 per cent of his time to administrative duties. None believe, however, that he should devote less than 10 per cent of his time to this phase of work; while 2 believe half his time should go to this function. The median weighting given to administration is 24.7, as indicated by Table VI.

For professional study and growth, 54 of the 58 judgments, or nearly 60 per cent, indicate that 10 to 15 per cent of the time should be devoted to this function. Only 6 believe that it should be 20 per cent or above, while only 7 indicate that it should be less than 10 per cent. The first quartile is 11.6, the median 13.24, and the third quartile 16.14.

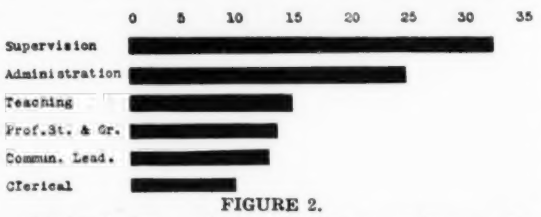


FIGURE 2.

Illustrating the rank of importance according to the median per cent of time given each of the six functions of the superintendent, as shown by the combined judgments of 58 educational experts.

Twenty-three, or 40 per cent, indicate a range of 5 to 15 per cent of time be given to actual classroom teaching, which would mean in practice that the superintendent should not try to teach more than one class of 45 minutes. Twelve, or .20 per cent, believe that no time should be spent in teaching. Only 6 indicate that it should be 25 per cent or more. The judgment of the middle 50 per cent shows the time should be as little as 8.1 and not more than 10.25 per cent of his time. The median for teaching, as shown by Table VI, is 13.42.

TABLE VI. The Functions of the Superintendent Ranked According to Their Importance as Shown by the Median Per Cent of Time Given to Each

Function	Per Cent of Time: First Quartile	Median	Third Quartile	Rank
Supervision	26.7	32.9	41.45	1
Administration	20.44	24.7	31.78	2
Teaching	2.1	13.42	12.25	3
Professional Study and Growth	11.1	13.24	16.14	4
Community Leadership	9.0	12.2	15.2	5
Clerical	7.7	10.6	13.5	6

The clerical function shows a high degree of agreement. Fifty of the 58 believe the per cent of time should range between 5 and 15, the median falling at 10.6 per cent, with the middle 50 per cent, as indicated by the first and third quartiles, between 7.7 and 15.5.

The item of supervision exhibits the widest range of judgment but in reality only one interval greater than administration, when it is known that the weighting of 62 per cent for supervision was made on the basis of a 25-teacher school, not keeping in mind the range of size as suggested in the questionary. It is also interesting to note here that the two judgments weighting administration 50 per cent, indicated 10 and 15 per cent respectively for supervision. Sixteen, or nearly 30 per cent, would allow at least one fourth of the time to supervision, while the median, 32.8, for the whole group, is considerably higher than the modal interval. The first and third quartiles are 26.7 and 41.45.

Community leadership should be given at least 10 per cent of the time, according to nearly one half of the judgments, while the median 12.2, indicates it should be a little higher. The judgment of the middle 50 per cent, as shown by the first and third quartiles in Table VI, is between 9.0 and 15.2.

The foregoing diagram, Figure 2, shows graphically the rank of each function, according to the per cent of time which *should be* given it in practice. The supervisory function appears to be easily the most important. It is considered to be twice as important as teaching, professional study and growth, or community leadership, and more than three times as important as clerical. Administration would rank second, teaching third, professional study fourth, community leadership fifth, and clerical sixth. However, teaching and professional study may be given a 3-4 rank each, since there is only a very small median difference.

Table VII shows the distribution of ranks given the several functions on the basis of individual weightings. The whole numbers indicate the actual rank given a function, while the decimals indicate that two functions have been given an equal rank.

It will be noted that there is a total of 45 first ranks, 33 being given to supervision. Of the 26 ties for first place, supervision was in combination with another function 12 times. Administration was of equal importance for first place 8 times. Teaching was mentioned as of first importance only once, while it equaled another function for first place 5 times, but was mentioned for sixth place 13 times. The remaining functions were never ranked first, and of the three professional study tied for first place once. Community leadership was ranked once for second place and tied three times for second place. The clerical function was of equal importance for second place only twice, but was mentioned only once for third rank.

By further inspection of the table it can be readily seen that there is no question of the prime importance of supervision as shown by individual ranks. Administration outranks the remaining functions for second place but does not approach supervision for first place.

The following table shows a summary of the data in an attempt to bring out the rank of importance of the several functions of the superintendent, as represented by the central tendency of the combined judgments of 58 university men.

TABLE VIII. Summary of Data Used in Computing a Final Theoretical Rank of Importance of the Superintendent's Six Functions

Function	Median Weighting	Total Weighting	Median Rank	Final Rank
Supervision	32.90	1,942	1.00	1
Administration	24.70	1,322	2.20	2
Teaching	13.42	675	3.85	3
Professional Study and Growth	13.24	669	4.00	4
Community Leadership	12.28	582	4.69	5
Clerical	10.60	495	4.86	6

The final rank for each function was given after a consideration of the three means of measurement, namely, the total actual weightings, the median time distribution, and the median individual rank. It will be seen that whether supervision is considered by the median time allotment, the actual weighting it received or by the individual rank, it is easily considered of first importance.

Further examination of Table VIII reveals a final ranking for the remaining functions derived by the same comparison. Administration is emphasized as of second importance. Although teaching and professional study are nearly of equal weight for third place, the latter has been given fourth rank, with community leadership fifth, and clerical sixth.

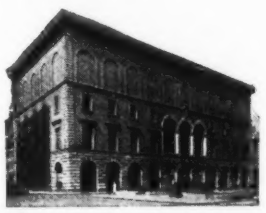
TABLE VII. The Distribution of Ranks Given the Six Functions of the Superintendent Computed on the Basis of the 58 Individual Weightings of Educational Experts

Function	RANK: 1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Supervision	33	12	10	3	0	0	0	0	0	0	0
Administration	13	8	20	7	6	4	0	0	0	0	0
Teaching	1	5	2	5	4	17	2	5	1	5	13
Professional Study and Growth	0	1	2	3	6	20	3	12	5	5	1
Community Leadership	0	0	1	3	5	11	3	16	7	8	4
Clerical	0	0	0	2	1	15	3	14	6	12	7

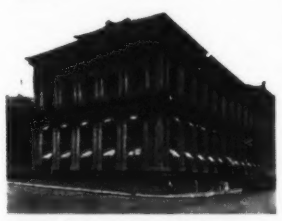
Saving $400 a Year
ON VULCAN ALL HOT-TOP GAS RANGES



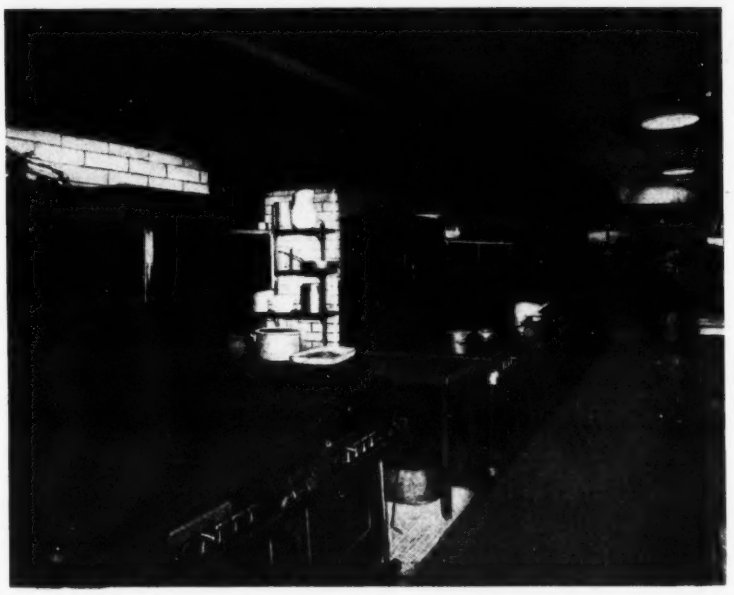
St. Joseph's Hospital, Milwaukee, Wis., needs its Vulcans for continual heavy duty. Installed by Milwaukee Gas Light Co.



The Racquet and Tennis — New York's most exclusive club and exclusively Vulcan-equipped. Installation by Consolidated Gas Co. of New York.



One thousand meals daily are served from Vulcans in the Pittsburgh Athletic Association. Installed by Equitable Gas Co., Pittsburgh.



The economical battery of Vulcans in the Pittsburgh A. A.

PITTSBURGH has a reputation for great wealth. Probably because Pittsburgh knows how to economize. Consider, in part, this letter from E. B. Danenhower, manager of the exclusive Pittsburgh Athletic Association:

"Vulcan equipment was installed in our club December, 1926, and for the year 1927 we show a saving of approximately $400.00 on gas consumption. *And we are operating two more units than formerly!*"

This is only one of the many tributes Vulcan has received from the club, hospital and school fields alone. Already many of the leading hotels from coast-to-coast are Vulcan-equipped. And why? Is it because of Vulcan's powerful, breathing burner? Its famous *all hot-top?* Its four regulating rings that permit perfect heat control? Or the enthusiasm of famous chefs? Possibly . . . but much more.

It is Vulcan's saving in actual use.

Figure your costs-per-meal in gas. Think of your kitchen morale and efficiency. And then study Vulcan *facts.* Send for your Vulcan book. Hotel Department, Standard Gas Equipment Corp., 18 E. 41 St., New York. *Pacific Coast Distributor: Northwest Gas & Electric Equipment Co., Portland, San Francisco, Los Angeles.*



The Fifth Avenue Hospital, New York, averages 2/10 cent a meal in gas costs on Vulcans. Installed by Duparquet, Huot and Moneuse.



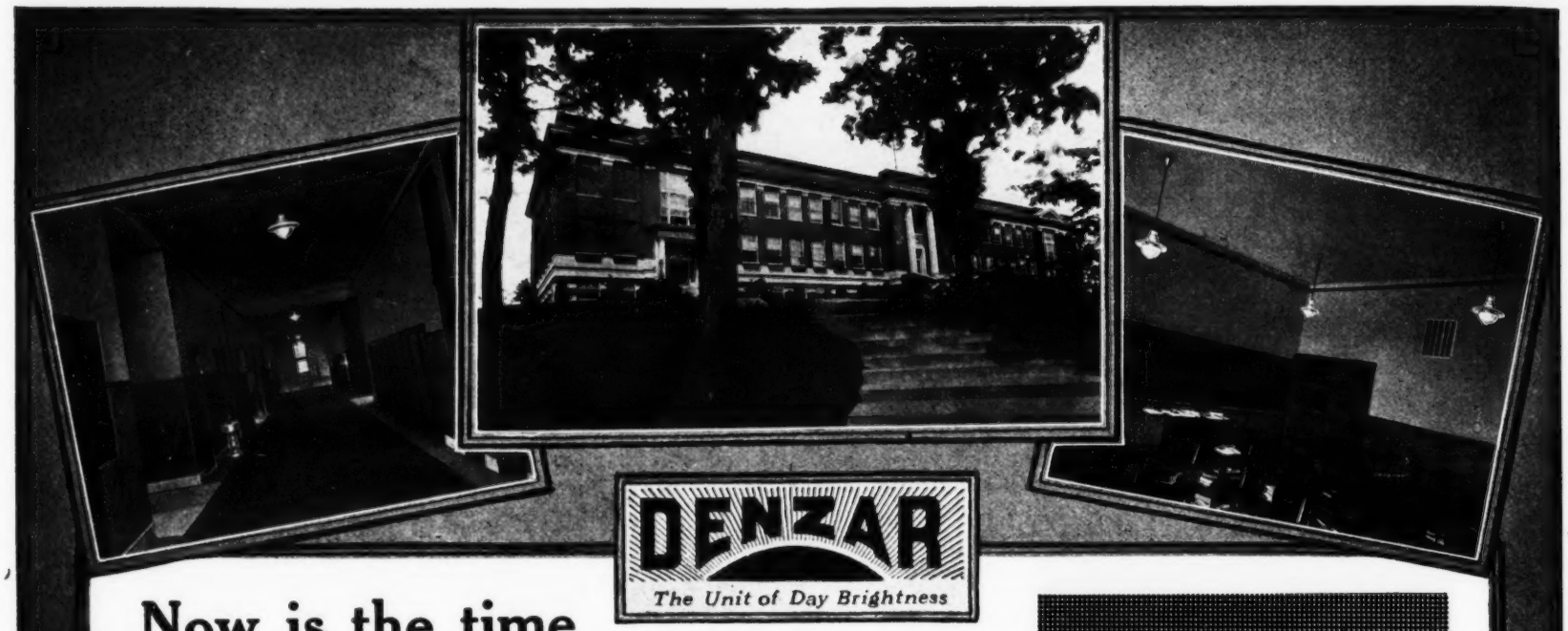
Authorities of the Emerson Junior High School Flint, Mich., looked over all makes and then chose Vulcans. Installed by Albert Pick & Co., Chicago.



George Washington High School, New York City. A noon meal for 4,000 students and 150 teachers is cooked on Vulcans. Installed by E. Kronman, Inc., New York.

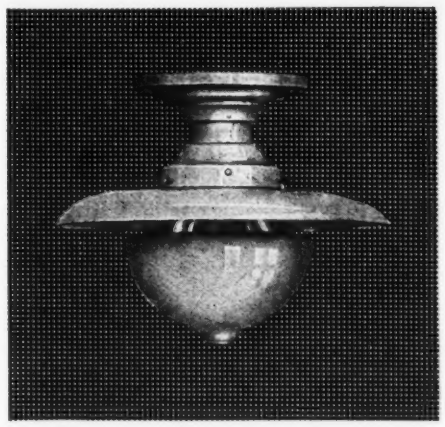
STANDARD GAS EQUIPMENT CORP., MAKERS OF SMOOTHTOP GAS RANGES, ORIOLE, ACORN AND

VULCAN
GAS HOT TOP RANGES



Now is the time to plan improvements in your school lighting

The vacation season will soon be here, enabling you to install new lighting fixtures without disturbing classes. THE DENZAR (pendant type illustrated above, ceiling type illustrated at right) is so widely used for school lighting that you should acquaint yourself with the reason for its popularity. We will gladly mail you a copy of the Denzar Catalog on request.



Beardslee Chandelier Mfg. Co.

219 South Jefferson St. CHICAGO, ILLINOIS

Keeping School-Board Members Informed

Supt. M. C. White, Deadwood, S. Dak.

School-board members are rightfully indignant, or at least they ought to be, when they cannot keep themselves informed about the schools over which they are supposed to have legislative control. Also, school-board members are not efficient in their official capacity unless they are well informed, not only about their own systems, but about educational matters in general. The facts are, however, that many school-board members find it difficult to know their own school systems, even when they wish to know them. Many make practically no effort to become informed upon school matters outside their own systems.

One of the important duties of the superintendent is to keep the board of education informed and this duty involves not only information about his own schools, but also information about other schools and education in general. The serious-minded superintendent wants his board to be informed. He is constantly seeking for educational progress, but he wishes that progress to be based on sound information and the informed judgment of as many people as possible. He will find it not only to his advantage, but to the advantage of the schools and the community, to exercise every effort to keep his board of education thoroughly posted in local matters concerning the schools, and informed of educational progress and the educational situation as it is throughout the state and nation.

Recently, the personnel of the Deadwood, South Dakota, board of education changed considerably. A new finance committee found it difficult to keep posted as to the condition of the budget. Other members lacked definite information about the schools in the various lines in which they are interested. The superintendent devised a method which he believes will enable the board members to keep posted. It consists of loose-leaf pocket notebooks, one of which is furnished to each member of the board and one to the secretary.

Superintendent's Monthly Financial Report

for _____ Month _____ Year

CONTROL ACCOUNT	Appropriation	Debits This Month	Total Debits This Year
Teachers salaries			
School supplies			
Manual training			
Auto mechanics			
Janitors salaries			
Fuel cost			
Janitors supplies			
Domestic science			
Light, water, power			
Miscel. gen. expense			
Athletics			
Printing and stationery			
Transportation of pupils			
Text books			
Library books			
Treasurer and clerk			
Buildings and improvements			
Fixtures and apparatus			
Insurance			
Interest			
TOTALS			

Remarks:

General fund balance from last month	
Deposited	
Withdrawals	
Balance	

Sinking fund balance from last month	
Interest	
Other deposits	
Withdrawals	
Balance	

FORM USED BY MR. WHITE.

All matters pertaining to the schools which are of statistical interest are duplicated on paper of the correct size and punched to fit the notebooks, and these copies are furnished to each member of the board and to the secretary for filing in their notebooks. It is intended to make this loose-leaf notebook a permanent manual for school-board members. The notebook contains condensed copies of the annual financial report, of the budget, condensed monthly summaries of the condition of the budget, showing expenditures for the month, expenditures for the year, and the condition of the general and sinking funds. Other items which it is expected will be incorporated later in this manual, are condensed summaries of the annual inventory, statistics as to enrollment, attendance, and school census, showing not only the present condition, but tabulated summaries of past years showing the growth of the schools. Copies of standing resolutions of the board of education, condensed copies of the high-school course of study, lists of teachers, subjects they teach, salary they receive, and possibly, in another year, a calendar of school events, will be included in this notebook. Our school district is very irregular in shape and it is probable that we will include a map of the school district. It is intended to furnish sheets with any data whatsoever, relative to the schools, that any member of the board requests or suggests that he would like or that the superintendent feels there is reason for furnishing.

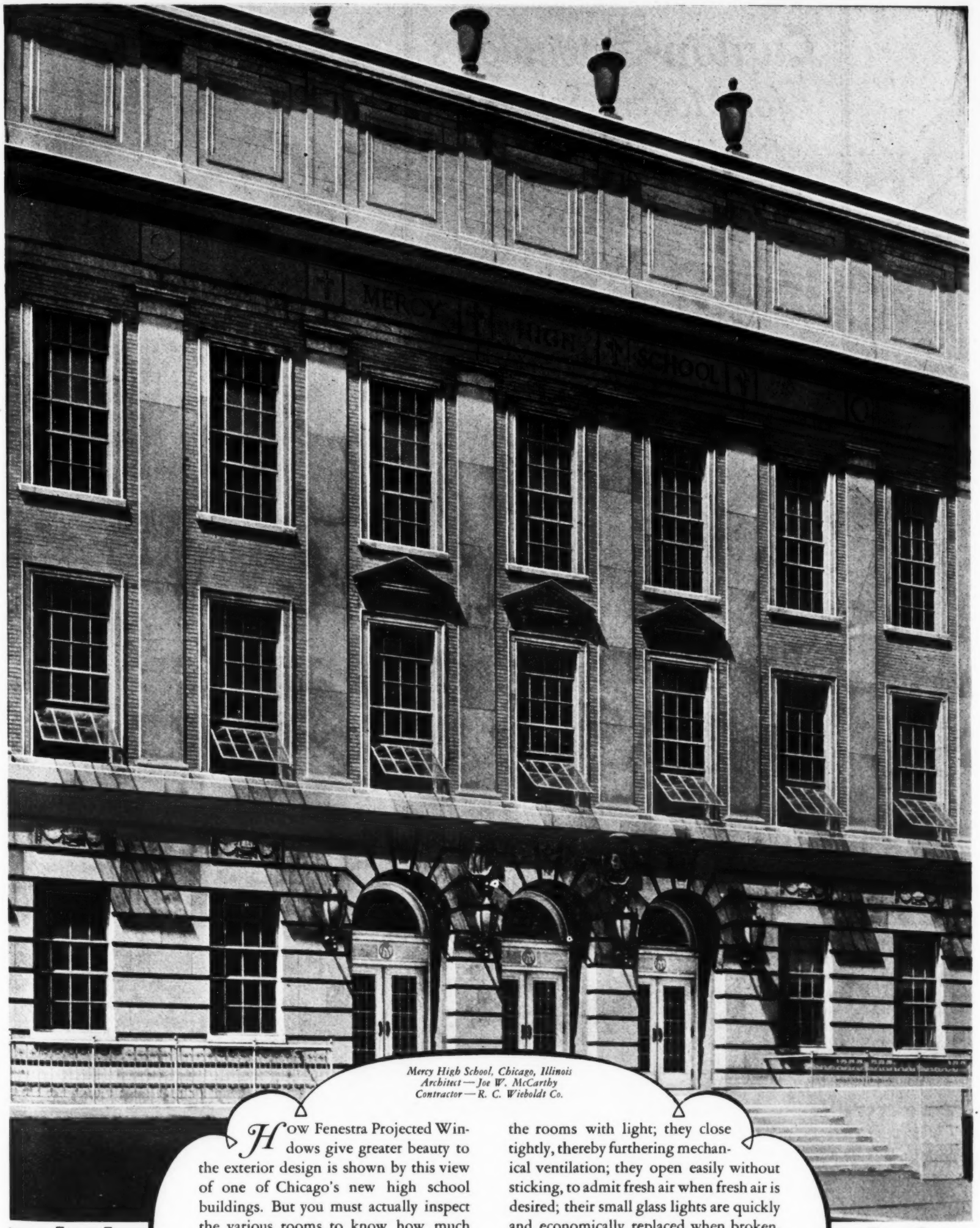
We believe that for a school system too small to make it advisable to have a printed manual for board members, this system is as good as any yet devised. It is simple, handy, and permanent, and can be made to give the data school-board members want.

—Mrs. W. P. Bair has been elected president, and Mr. T. P. Sharpnack, vice-president, of the board at Des Moines, Iowa.

—Miss Ellen G. Hayden has been elected a member of the school board at Methuen, Mass. She is a teacher in the Boston schools. A local newspaper says: "We believe her a woman of vision and have confidence in her ability and judgment."

—Mr. T. E. Spencer, formerly principal of the vocational school at St. Louis, Mo., has recently been appointed as director of the new department of reference, research, and publicity.

—Mr. Clyde C. Rickes, assistant to the business manager of the school board at Indianapolis, Ind., has presented his resignation to the board.



Mercy High School, Chicago, Illinois
Architect — Joe W. McCarthy
Contractor — R. C. Wieboldt Co.

How Fenestra Projected Windows give greater beauty to the exterior design is shown by this view of one of Chicago's new high school buildings. But you must actually inspect the various rooms to know how much these better steel windows are contributing to the health, comfort and convenience of teachers and pupils. They flood the rooms with light; they close tightly, thereby furthering mechanical ventilation; they open easily without sticking, to admit fresh air when fresh air is desired; their small glass lights are quickly and economically replaced when broken.

Details of Fenestra Steel Windows will be found in the 82-page Fenestra Blue Book in Sweet's Catalogue.

DETROIT STEEL PRODUCTS COMPANY, 2266 EAST GRAND BOULEVARD, DETROIT, MICHIGAN
CANADIAN METAL WINDOW AND STEEL PRODUCTS CO. LTD., TORONTO. FACTORIES: DETROIT, MICH., OAKLAND, CALIF., AND TORONTO, CAN.

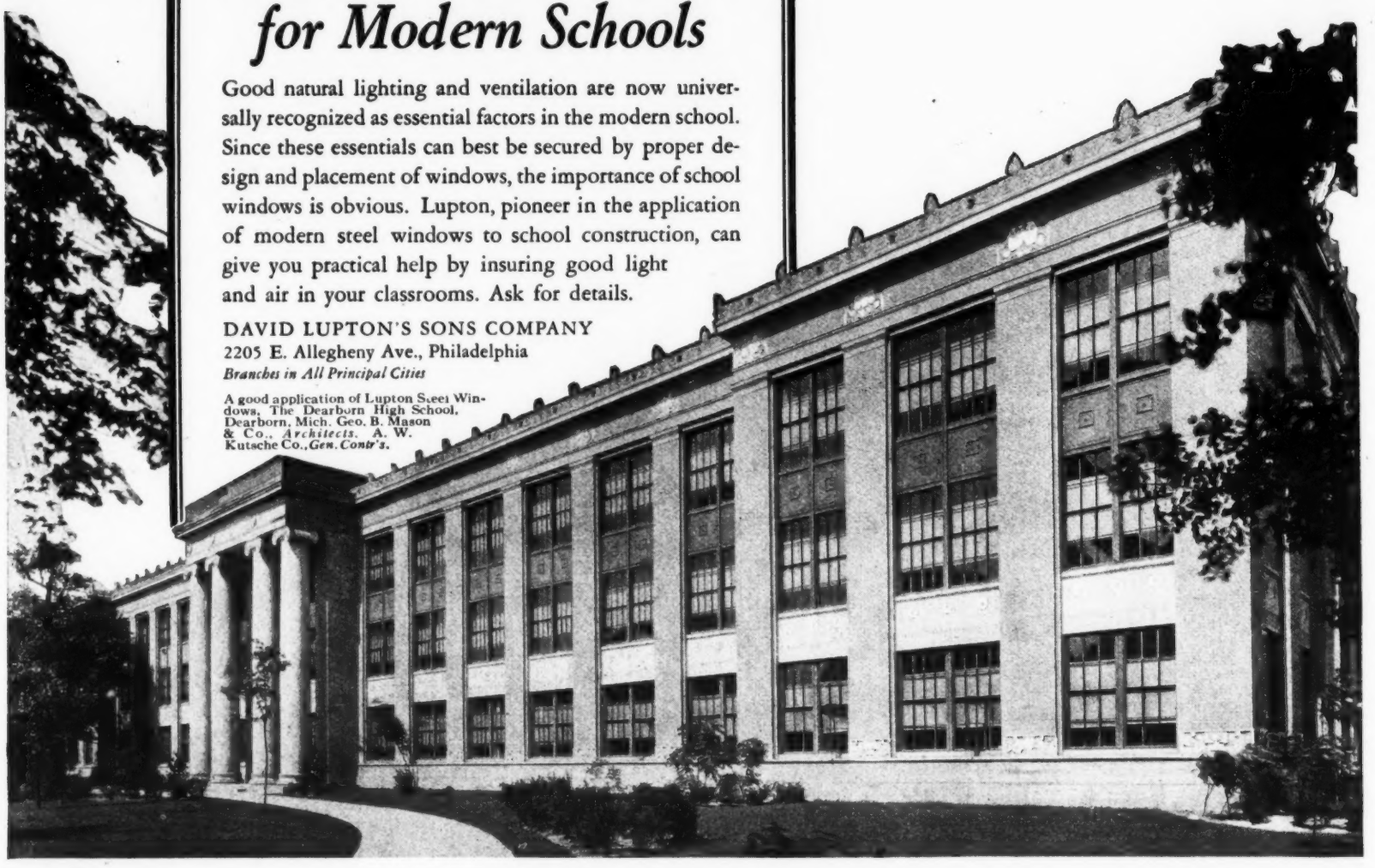
Fenestra Steel Windows

Lupton Windows for Modern Schools

Good natural lighting and ventilation are now universally recognized as essential factors in the modern school. Since these essentials can best be secured by proper design and placement of windows, the importance of school windows is obvious. Lupton, pioneer in the application of modern steel windows to school construction, can give you practical help by insuring good light and air in your classrooms. Ask for details.

DAVID LUPTON'S SONS COMPANY
2205 E. Allegheny Ave., Philadelphia
Branches in All Principal Cities

A good application of Lupton Steel Windows, The Dearborn High School, Dearborn, Mich. Geo. B. Mason & Co., *Architects*. A. W. Kutsche Co., *Gen. Contr's.*



A LETTER FROM THE SUPERINTENDENT

To the Principals:

I wish to present to the school board the names of teachers for reelection, at a meeting to be held May 8. This list will contain the names of those teachers who will go on tenure, and also those who will be reelected for their second or third year. I assume that there are few teachers not deserving of reelection. If you have any, please notify me not later than Tuesday noon. All teachers not on tenure will be recommended for reelection or tenure, unless a principal desires to withhold recommendation.

This does not mean that principals should not withhold recommendation. I have in mind one case in which I shall be disappointed if the principal does not withhold recommendation for reelection. No statement is necessary on teachers whom you want to retain. I shall assume that you recommend for reelection all teachers in your respective buildings, unless you notify me of individual cases in which you do not wish to have the teacher retained.

Not to retain a teacher who has served one or more years in our schools is a very serious matter because of the effect such action will have on the teacher's future. No teacher ought to have notice of nonreelection come as a surprise. Unless there have been conferences and suggestions in regard to her poor work, and unless there are definite records to support and clearly justify a decision not to retain a teacher, then such a decision must not be made. Statements to the effect that a teacher is inefficient, fails to cooporate, neglects to carry out instructions, is weak in discipline, etc., are not sufficient. Such statements must be substantiated by recorded evidence.

The school board, when electing or reelecting teachers, must base its action on the recommendations of the superintendent of schools; while the board must of necessity depend upon the judgment of the superintendent almost wholly in the selection of teachers, the board would not be justified in withholding reelection simply on the judgment or opinion of the superintendent. In several states teachers who have been denied reelection because of "inefficiency," etc., have been successful in court action because refusal of the school board to retain the teacher was based on opinion, and there were no records nor definite evidence to show that there was inefficiency.

At this time I desire to express to you my appreciation of the results of your classroom supervision and teacher-training work. During the last two years you have had an unusual number of inexperienced teachers. No matter what the scholastic standing of an inexperienced teacher may be, and no matter how thoroughly she may have done the purely pedagogical part of her work in normal school or college, her most important training for the teaching profession is acquired during her first year in the service. Probably the most important part of the principal's job is teacher training. On the whole this work is being well done in our schools. I have one suggestion to make in regard to the matter of teachers' meetings. I suggest that you make a regular schedule of teachers' meetings and file a copy in my office. It might be well for the principals having elementary grades to do this in your principals' club meeting so that the regularly scheduled meetings—one each month—might not conflict. Such an arrangement would give the superintendent an opportunity to attend several of your meetings during the year. You could still have as many special meetings as you desire.

Very truly yours,

Superintendent.



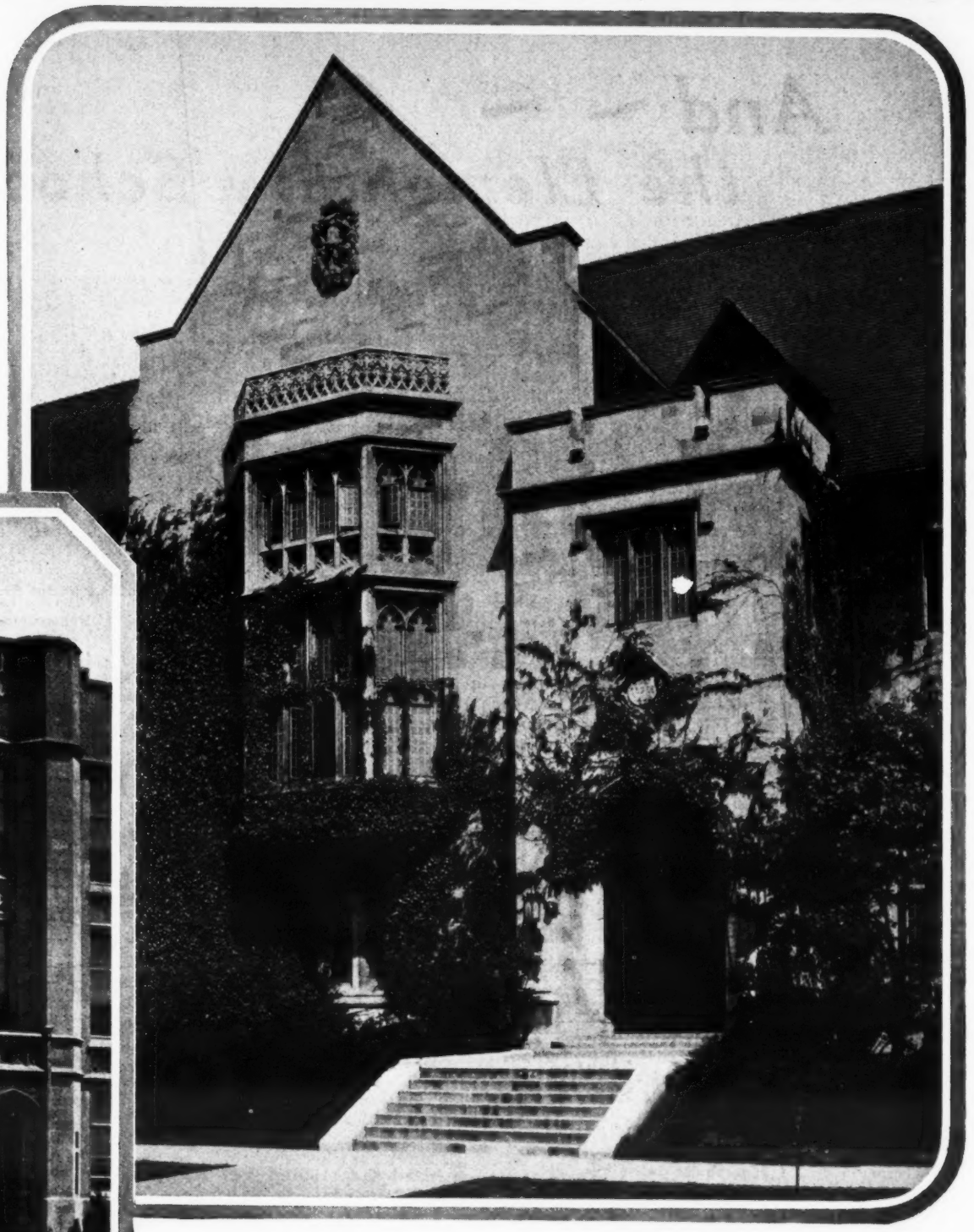
PRESENT BOUQUET TO NEW BUSINESS MANAGER OF THE CHICAGO PUBLIC SCHOOLS

Mr. Ernest Withall, on March 19, took up his duties as business manager of the Chicago board of education, succeeding Mr. John E. Byrnes. Mr. Withall was formerly purchasing agent of the board. At one time he was chairman of the Illinois Industrial Commerce Commission.

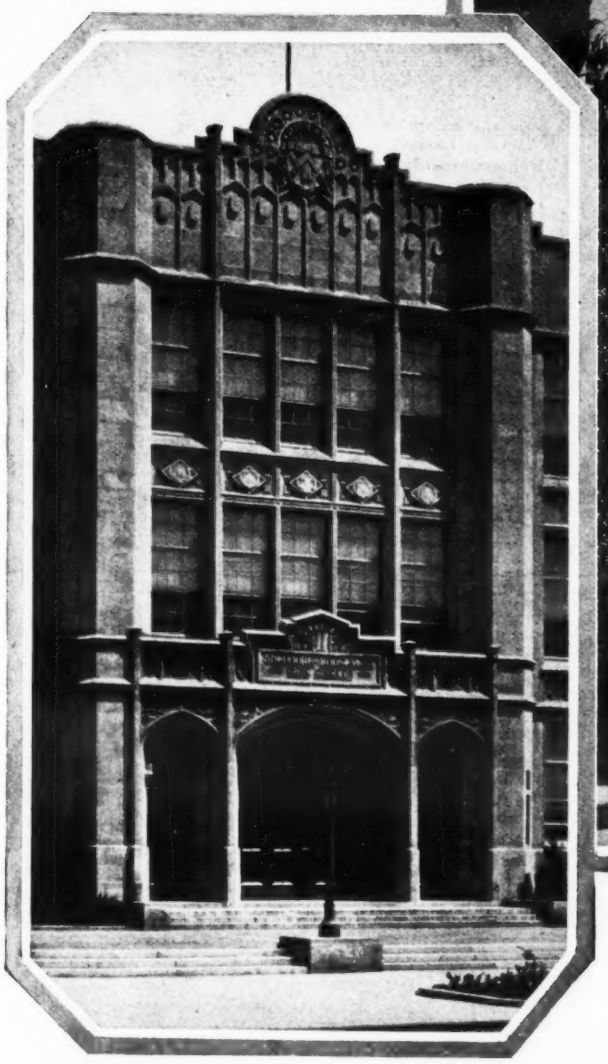
Mr. Withall is 50 years old and has a wife and four children.

—Mr. Randolph L. Clark, superintendent of schools at Gainesville, Texas, has been reelected as a member of the Texas Educational Commission.

—The board of education of Rocky River, Ohio, is receiving applications from schoolmen for the office of superintendent of schools. The board will interview any candidate who qualifies for the position. Applicants for the vacancy should address Mr. F. D. Fenker, clerk of the board, Rocky River High School, Rocky River, Ohio.



(Below) Entrance, Theodore Roosevelt School, Wyandotte, Michigan. B. C. Wetzel & Co., Architects. An example of Indiana Limestone used as trim.



Ida Noyes Hall, University of Chicago. Shepley, Rutan and Coolidge, Architects. This is but one of the many fine Indiana Limestone buildings forming the University of Chicago group, which is generally acknowledged to be the finest group of college buildings in America designed in the Gothic style.

NO NEED OF USING A SUBSTITUTE

THE hundreds of fine modern school buildings the country over in which Indiana Limestone is used as trim or for the entire facing, show the nation-wide acceptance of this fine, light-colored natural stone for school building.

Architects regard Indiana Limestone not only as pre-eminently desirable for school buildings from an artistic standpoint but as economy.

Walls of Indiana Limestone remain beautiful year after year without expensive cleaning or costly repairs. This low exterior upkeep expense is a factor of decided importance in school construction. It is leading to the building of more and more schools with all-stone facing.

Used as trim in combination with brick, Indiana Limestone likewise gives an exceedingly attractive exterior. This combination has become almost standard for schools.

Modern production methods have reduced the cost of Indiana Limestone. There is now really no need of using a substitute, or attempting to imitate Indiana Limestone effects by the use of a cheaper material.

Write for Booklet

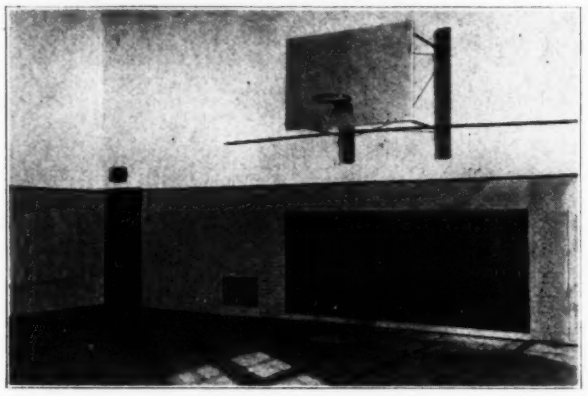
We will send you free our illustrated book which gives interesting information on both school design and cost. This shows many examples of the best types of modern school buildings.

Have your secretary write for it today. Address Box 780, Service Bureau, Indiana Limestone Company, Bedford, Indiana.

INDIANA LIMESTONE COMPANY

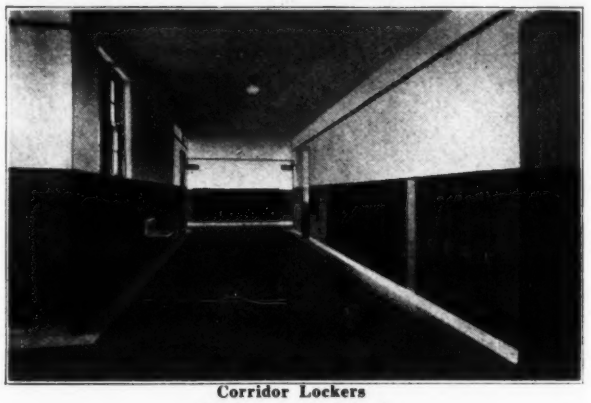
GENERAL OFFICES: BEDFORD, INDIANA EXECUTIVE OFFICES: TRIBUNE TOWER, CHICAGO

And ~ ~
the Elementary Schools Too



Gymnasium Shoe Lockers
Ebinger Grade School

For years—and no one seems to know why—the installation and use of steel lockers in schools was confined to high schools and colleges. Just as if the real young folk, the kiddies, were not equally entitled to protection against fire, contagion, petty thievery, vermin and rodents. The fact of the matter is they need steel lockers more than the older children.



Corridor Lockers
Ebinger Grade School

But modern educators have taken a different viewpoint. The kiddies have their Durand Steel Lockers just as the older boys and girls. And best of all they appreciate them and make good use of them. Sometimes they even hide the "contrabands of war"—gum, fruit, slingshots, marbles, etc.—while they attend their classes. Write us today about Durand Steel Lockers for Elementary Schools.

DURAND STEEL LOCKER CO. INC.
1511 FIRST NATIONAL BANK BLDG.
CHICAGO ✣ ILLINOIS

SCHOOL FINANCE AND TAXATION

STANDARDIZED SCHOOL FINANCING AT SACRAMENTO, CALIFORNIA

The Sacramento school department is unique in its system of financing. The school officials have recognized the fact that much of the success in education is to make every dollar do a dollar's worth of work. To this end, the business department is an integral part of the entire school system.

Mr. Ellwood J. Woodburn, business manager of the Sacramento school system, in an article in *School Progress*, the local school paper, discusses the finances in a scientific manner and shows how every dollar of the taxpayer's money actually does more than a dollar's worth of work. This satisfactory system of financing the school system is due to anticipating the needs of the department, buying accordingly and in large quantities, and a rigid scanning of the market for the best materials at the least cost. Thousands of competitive bids are asked on school supplies each year in the city.

Standardization of supplies is justified, according to Mr. Woodburn, where the same type of quality of a particular item or merchandise is used in different locations or schools in the carrying on of a standardized or fixed educational program. This is true where the program is running simultaneously along parallel lines in the separate schools toward a certain objective and all conditions are equal.

Standardization of supplies in the case of a fixed or standardized educational program, has a tendency to prevent variations in the program and to eliminate the carrying over of quantities of merchandise of different types or qualities which would result if different types of merchandise were supplied to carry on the educational program. The standardization of supplies gives a stock control, a record of distribution in relation to registration, and furnishes an analysis of the use of certain supplies in terms of quantity, distribution, and consumption between different schools functioning along parallel lines.

Under the plan of standardization, Mr. Woodburn points out that there is a certain balance of one particular item, which in effect decreases the quantity of the dead stock. The warehousing of stock by a school department is free from interest upon the investment, and rent and taxes do not figure in the overhead.

Mr. Woodburn points out that in determining the program of the year for which supplies are to be contracted, it is necessary for the purchasing agent to have an intelligent idea of the amount of merchandise necessary for the operating of the particular program, or a record of the amount used in terms of quantity for like purposes during the last year.

The following analysis of the effect of standardization upon prices has been outlined by Mr. Woodburn:

First, the elimination of overhead would influence prices to the consumer, in this case the schools, are:

a) The ordering of a definite quantity, thus permitting in the case of stationery, a mill run at mill convenience.

b) One shipment or handling charge with the delivery direct from the car to the school warehouse.

c) The elimination for the merchant of numerous invoices, postings, and billings.

d) The assurance to the merchant of a quick turnover in stock.

e) A prompt payment to the merchant with the consequent saving of the interest on the value of the order in terms of money represented if allowed to run over a long period of time.

f) The determining of standardization of certain sizes, as for instance, certain size cuts of paper in stationery, or minimum lengths or over in lumber, the determining of said size or lengths of lumber being influenced by the fact that they would represent the cutting of mill stock to advantage; in other words that the mill stock would cut with the least possible waste.

g) Increased competition for the reasons stated.

HIGHER WAGES INCREASE SCHOOL EXPENDITURES IN CLEVELAND, OHIO

Mr. L. C. Bain, chief of the bureau of child accounting and statistics at Cleveland, Ohio, in a brief article on increased costs common to homes, stores, factories, and government, points out that expenditures for public schools have increased rapidly in the last fifteen years since 1913. He shows that the United States has expended for free public schools approximately 521 millions in 1913; in 1925, the last year for which data are available, approximately $1,946,000,000, an amount three and three-fourths times as great as that expended twelve years previous. The estimate for the present year is two and one-half billions.

Writing on the costs of schools in Cleveland, Mr. Bain shows that for the school year 1913-14 the current expenditures were $3,601,320; for the year 1926-27 they were $16,480,197, or 4.6 times as great as the 1913 current expenditures.

Increased enrollment and changes in the character of the enrollment were factors entering into the increase in costs, according to Mr. Bain, but this large increase may not be accounted for wholly on the basis of increased enrollment. Social and economic factors enter into the increases and are even more significant than the increase in the number served by the schools.

For the Cleveland schools the 1926-27 enrollment factor alone, from an expenditure standpoint, warrants current expenditures only 1.87 times as great as those of 1913-14. On this basis, the 1926-27 current expenditures would have amounted to $6,734,468, but $16,480,197 were expended—an amount 2.45 times as great as would be warranted if enrollment were the only factor affecting school expenditures during the thirteen years.

The data compiled, according to Mr. Bain, would appear to indicate that the changes in social and economic conditions have operated to effect practically the same increase in school expenditures as in the wage scales of the local trades, and in the average compensation of all persons gainfully employed. Union wages, it is pointed out, have continued to advance until now they are more than two and one-half times per hour the wages of 1913. The increase is a little more than the increase in school expenditures after the correction for increased enrollment has been made, and is particularly significant in the case of the schools because more than 84 per cent of the school expenditures for 1926-27 were paid directly to the various employees of the board of education. Moreover, wages are large factors entering into

(Continued on Page 78)

TRUSCON

TWENTY-FIVE YEARS OF PIONEERING & LEADERSHIP

Truscon is an institution of national scope, the largest company of its kind in the world, manufacturing a complete line of steel products for permanent construction.

STEEL WINDOWS for better daylighting and ventilation. Specially developed types for School requirements.

REINFORCING STEEL in keeping with individual designs and conforming to a standard practice.

STEEL JOISTS, all types for an economical fireproof floor construction.

METAL LATH for permanent, crackproof plaster walls and ceilings. A complete line of Plastering Accessories.

STEELDECK ROOFS, I-Plates, lightweight, permanent, insulated to prevent heat loss, and waterproofed.

STRUCTURAL STEEL for every kind of building design incorporating the most modern methods.

Truscon maintains a nation-wide organization of experienced engineers, a Truscon office in almost every principal city to cooperate in any way with those interested in building.

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

Pacific Coast Factory, Los Angeles, California
Foreign Trade Department, 90 West St., New York
Trussed Concrete Steel Company of Canada, Limited, Walkerville, Ontario
The Truscon Laboratories, Detroit, Michigan

SERVICE

ENGINEERING-ESTIMATING-NATIONWIDE ORGANIZATION



The DUNHAM Difr-enshal-Vacm Heating System.
A FIXED DIFFERENTIAL IN PRESSURE — A VARIABLE DEGREE OF VACUUM

U. S. Patent No. 1644114. Additional patents in the United States, Canada, and Foreign Countries now pending.

Look for the Name

DUNHAM

This nameplate identifies a genuine DUNHAM Radiator Trap



STEAM is a giant of tremendous power. For more than a century it has been harnessed to drive the world's steamships and railway trains, and to supply power for the world's industries.

Fifty years ago, when steam was first used for heating, the giant knew no leash. He was permitted to hold noisy dominion over the entire heating system, where he clanked and rattled to his heart's content, because steam pressures in the old-fashioned heating systems of the seventies were usually maintained at high levels, regardless of outdoor temperatures. Often these high steam pressures were the only means by which the steam could be forced through the piping and into the radiators against the accumulated air and water they contained.

Thus the Giant Steam knew no master in the heating field until a quarter century ago, when the invention of the Dunham Thermostatic Radiator Trap effectively controlled his force and subdued his strident voice. This remarkable invention, a typical Dunham development, made possible the Vacuum Return Line System, using pressures in the steam main and vacuums in the return mains. Then followed other important Dunham contributions to heating, such as the Dunham Vapor Heating System, using steam at tea-kettle pressure, and the Dunham Return Trap System.

These developments, all pioneered by Dunham Engineers, were worthy forerunners of the present day Dunham Differential Vacuum Heating System, which, in this Dawn of a New Era in steam heating, has not only fully tamed the Giant Steam through its successful application of Sub-Atmospheric Steam to heating, but, of even greater importance, has removed the great fuel waste which had accompanied its use.

By making use of steam produced at pressures below atmosphere, and at temperatures to correspond with these pressures down to as low as 133 degrees, the Dunham Differential Vacuum Heating System does away with the need for wasteful window opening. In a building heated with Sub-Atmospheric Steam you will not find windows flung open to permit the surplus heat to escape, for indoor temperatures are effectively controlled so as to eliminate this waste of fuel. And in addition to this fuel saving, into the radiators against the accumulated air and water they contained. Sub-Atmospheric Steam insures better health among building occupants, because the indoor air is neither over-heated nor dried out by excessive temperatures. *Only in the Dunham Differential Vacuum Heating System are these vital advantages obtainable.*

Over eighty branch and local sales offices in the United States and Canada and the United Kingdom bring Dunham Heating Service as close to you as your telephone. Consult your telephone directory for the address of our office in your city. An engineer will counsel with you on any project.

C. A. DUNHAM CO.

Dunham Building, 450 E. Ohio St.

CHICAGO

HEATING

(Continued from Page 76)

and determining the cost of the materials, supplies, books, and equipment purchased from the remaining 16 per cent of the current expenditures.

From the standpoint of the tax rate, it is evident that Cleveland's school expenditures have increased but little more proportionately than have expenditures for other functions of government financed by the property tax; and this difference may be attributed to the increase in the debt-service requirements which carry the bonds issued to provide school buildings for the growth and shifts in population since 1913.

An analysis of the current expenditures of the Cleveland schools shows that the largest item in the list of salaries and wages making up the 84 per cent of the 1926-27 current expenditures is the expenditure for classroom teachers. This item alone is $10,220,425, which is 62.02 per cent of the total current expenditures.

The next largest item is that paid to principals and assistant principals; their salaries amount to $823,099, or 4.99 per cent of the current expenditures.

The fourth largest item is that paid to those engaged in any capacity in general control; i.e., all phases of the general administration of the schools —financial, business, and educational. These functions of school administration involve an expenditure for salaries and wages of $569,876 or 3.45 per cent of the current expenditures for school purposes.

If it were possible to eliminate a considerable part of any one of the last three items mentioned above the saving would be small for their combined total is less than 15 per cent of the total current expenditures. The only item whose total is such as to afford a possibility of any considerable reduction in total expenditures is that of teachers' salaries.

There are two ways in which teachers' salary expenditures may be reduced. One is to reduce the salaries paid teachers and the other is to reduce the number of teachers. Few would argue that good teachers are overpaid for their services. A decrease in the number of teachers would mean an increase in the number of pupils per teacher, and it is hardly feasible to increase the average number of pupils per teacher for the reason that it is not possible to organize all classes and schools on an average basis.

Mr. Bain points out that, if any considerable saving is to be effected in expenditures for classroom teachers, it must come as a result of research in education, which will demonstrate a more economical and efficient school organization than the present one.

IMPORTANT SCHOOL-BOND SALES OF THE PAST MONTH

California—San Mateo Co., Sequoia Union High School District	$250,000
Connecticut—West Hartford, School	500,000
Illinois—Lafayette, School District	18,000
Missouri—Normandy, Consolidated School District	342,000
New Jersey—Dumont, School District	285,000
New Jersey—Dumont, School District	267,000
New Jersey—Summit, School	379,000
New York—Hempstead, Union Free School District No. 20	273,000
New York—New York, School Construction	450,000
New York—Rochester, School Revenue	350,000
New York—Salina, Union Free School District No. 1	300,000
North Carolina—Durham, Public School District	500,000
North Carolina—Wake Co., School	400,000
Ohio—Dayton, School District	645,000
Pennsylvania—Johnston, School District	250,000
Rhode Island—Central Falls, High School and Grade Crossing	379,000
Texas—Alamo Heights, Independent School District	300,000
Texas—Corpus Christi, Independent School District	400,000
Washington—King Co., School District No. 1	800,000

PHILADELPHIA BOARD MUST ECONOMIZE

—Philadelphia, Pa Mr. William Dick, secretary and business manager of the board of education, in his farewell report to the board, told of the economy need facing the schools and declared that the school plant must operate on nearly $1,000,000 less than formerly.

Mr. Dick, in his report, definitely outlined the causes leading up to the strained financial condition of the schools. He pointed to the low school-tax rate as the principal reason for the shortage in funds, but at the same time said he was optimistic concerning the approach of a start on the erection of the school-administration building.

In announcing that appropriations for educational material, equipment, and maintenance of the school plant had suffered a reduction of $827,725.99 in the past year, Mr. Dick proposed that much old equipment be renovated as one means of financial retrenchment.

Mr. Dick showed that although the assessment for 1927 was $212,820,000 in excess of that for 1926, the amount of current revenue for the past year was about a million dollars short of that for the previous year. This is due to the reduction of the tax levy for 1927 and to the further fact that the amount of taxes remaining unpaid at the close of the year was $808,808.52 greater than had been approximated at the beginning of the year.

Mr. Dick surveyed the six-year building program of the schools and announced that instead of sixteen schools, whose condition was classed as bad in 1916, there is now only one school so classed. Instead of only 77 excellent schools in 1921, there are now 198. For the first time the rating of the entire school plant is given as excellent, above 90 per cent.

From the sale of old school buildings, the administration-building fund has been increased by $849,000 and it is announced that the site for the structure will soon be in the hands of the board.

Despite the economy program of the board, the report shows that the number of school employees has increased 574 over the number of last year, while there is an increase of salaries paid of $1,201,158.

FINANCE AND TAXATION

—The school budget of Detroit, Mich., for 1928-29 is $29,440,861. The income from various sources, other than taxation and bonds, is given at $5,377,000, making the net total asked from the city directly $24,063,861. The amount shows an increase of $1,627,782 over the previous year. It is estimated that by next October there will be an increase of 11,827 in school attendance. In the last five years the school attendance increased by 58.7 per cent.

—The elementary schools of California drew $5.60 per pupil from the state funds and high-

(Continued on Page 81)

Motor-generator outfit eliminated by this new Unit



PeerVent Unit with front removed. All parts can easily be removed and replaced, without tools. The air filter (extra equipment) can be of any make specified.

OTHER FEATURES

New radiator with large closely-spaced fins embedded permanently into copper alloy tubes. No soldered, welded, brazed or gasketed joints.

Noiseless a.c. motor. Adequate speed regulation, with saving of current at lower speeds.

Improved fan housings and dampers. Better controls, larger discharge capacity at lower speeds, less noise, substantial saving of power.

Standard units and controls for practically all requirements, eliminating expensive special designs.

The new PeerVent a.c. motor improvements are the final step in placing the unit system on a strictly unit basis. The motor-generator outfit in the basement is eliminated, which means lower first cost, lower operating cost, saving of space, and a possible source of trouble completely banished.

Incidentally, the new PeerVent motor and other improvements effect a substantial saving of electric current, especially at the lower speeds.

SEND FOR NEW BOOKLET. Enclose the name and address of your architect and we will gladly mail him a copy, too. Or, on request, we will send our local representative.

PEERLESS UNIT VENTILATION CO., INC.
718-34 Crescent Ave. - - Bridgeport, Conn.

New York, 369 Lexington Ave.; *Boston*, 180 Boylston St.; *Buffalo*, 135 University Ave.; *Harrisburg*, 705 Telegraph Bldg.; *Cleveland*, 1836 Euclid Ave.; *Detroit*, 1214 Lafayette Bldg.; *Chicago*, 808 Monadnock Bldg.; *Minneapolis*, 240 Seventh Ave. So.; *Portland, Ore.*, 927 Board of Trade Bldg.; *Toronto, Canada*, Darling Bros., Ltd., 77 York St.

PEERVENT

Heating and Ventilating Units

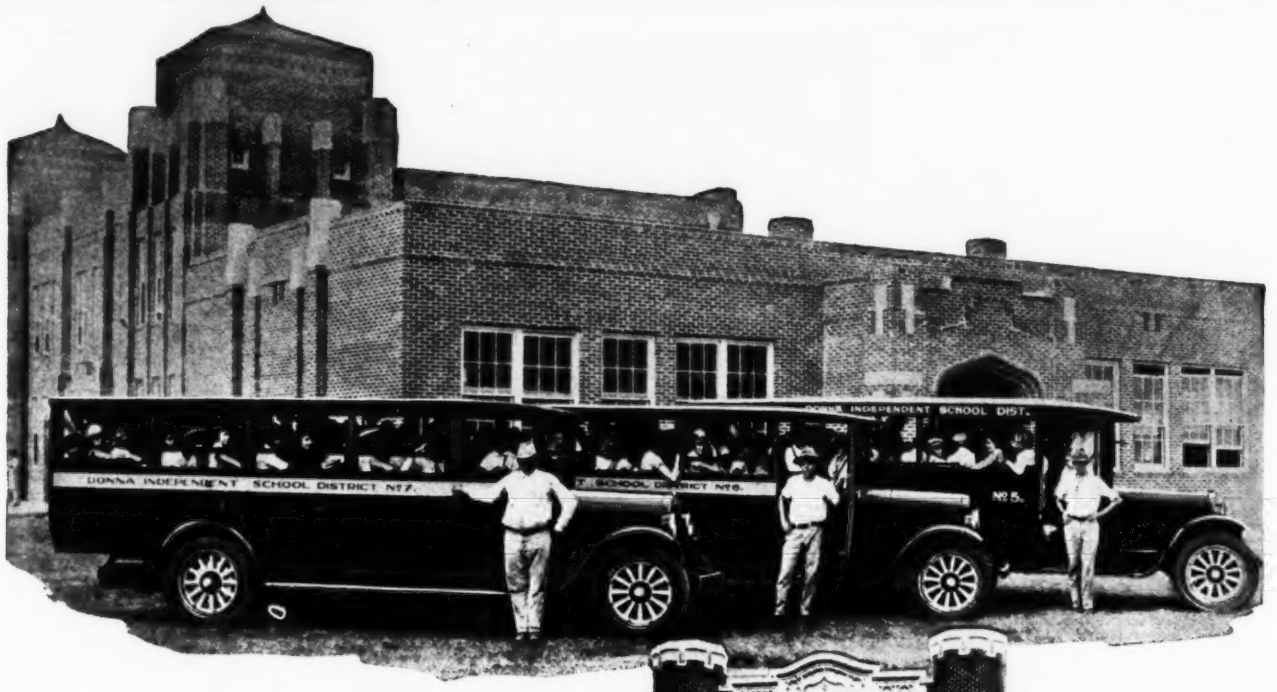
Mail this! with your letterhead, please

To Peerless Unit Ventilation Co., Inc.,
718-34 Crescent Ave., Bridgeport, Conn.

☐ Send booklet about PeerVent Units.

☐ Send your local representative.

S



Donna Independent School District, Donna, Texas, operates three Graham Brothers School Buses. A letter, commenting on their "clock-like service," concludes:

"We would cheerfully recommend Graham Brothers School Buses to anyone for transporting children at a low cost of maintenance and operation."



Four Graham Brothers School Buses transport the children of Hershey Junior-Senior High School at Union Deposit, Pa. "Through mud and snow ..... they have not missed a single day," writes Thomas G. Fox, in charge of the fleet.

BODY BUILT FOR CHASSIS— CHASSIS BUILT FOR BODY

Prices

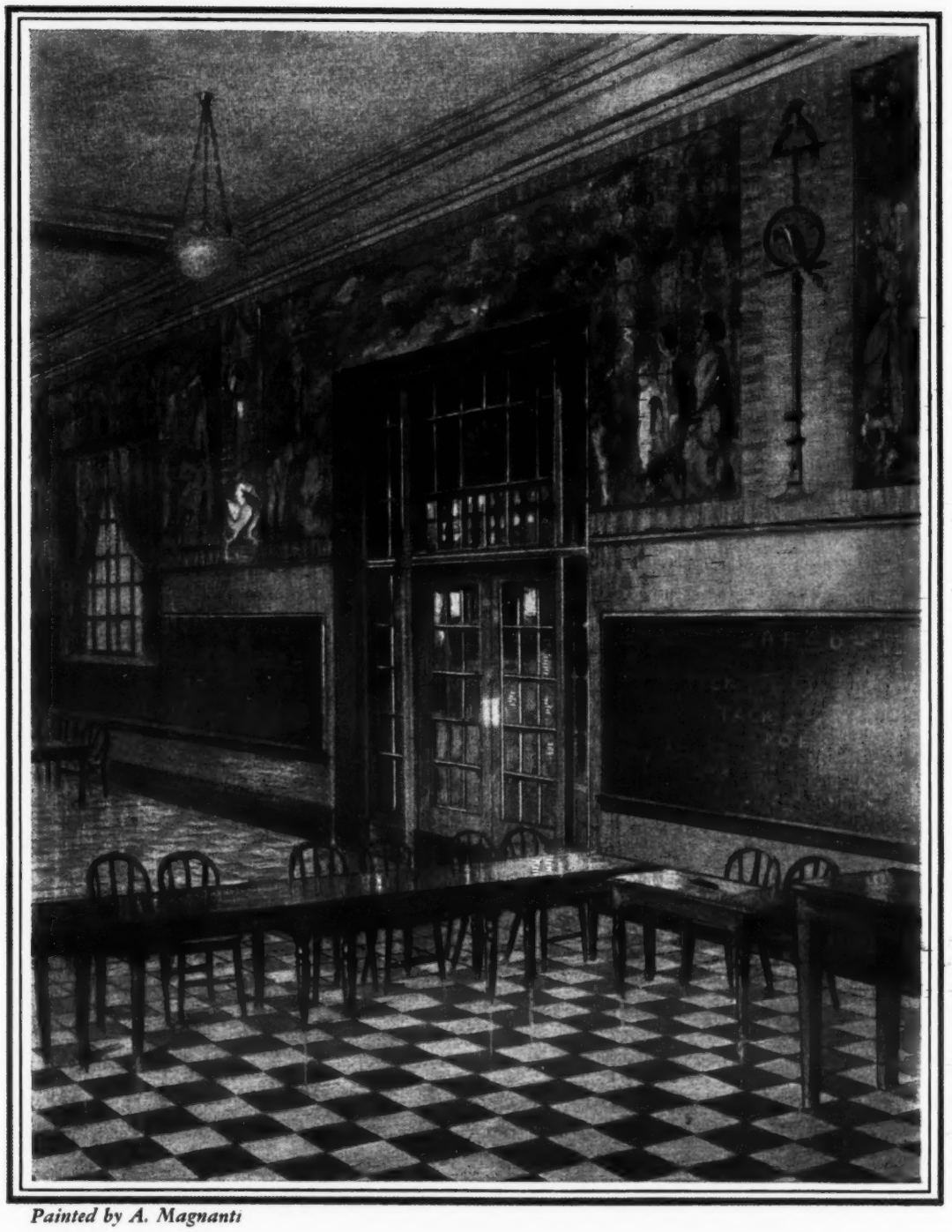
Graham Brothers School Buses are built, complete with bodies, in capacities ranging from 20 to 56 children, at prices from $1550 up, f. o. b. Detroit.

One important reason for the continually increasing popularity of Graham Brothers School Buses is the fact that the complete bus is built by one maker.

Chassis and body are built to the same high standards adhered to in all products of Dodge Brothers, Inc. This assures school officials of maximum value—dependable, safe, comfortable school buses, low in initial cost and economical to operate.

GRAHAM BROTHERS SCHOOL BUSES

BUILT BY MOTOR COACH DIVISION OF DODGE BROTHERS, INC.
SOLD BY DODGE BROTHERS DEALERS EVERYWHERE



Painted by A. Magnanti

FLOORS FOR THE SCHOOLS OF TODAY —AND TOMORROW

Number 1. The illustration on this page is from a booklet, entitled "Analyzing the Problem of Finished Floors in Schools."

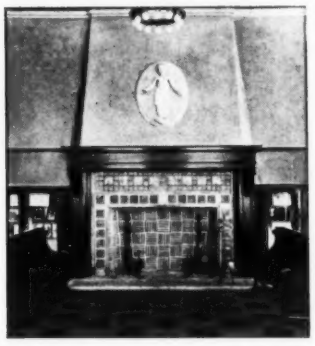
Because it limits its discussion strictly to the proper use of resilient floors in schools, you will find it of real interest. A copy will be sent you on request. See the next page.

See next pa

"ANALYZING THE PROBLEM OF FINISHED FLOORS IN SCHOOLS"

When a school executive sends for a book offered free in an advertisement, he wants information—not ballyhoo and tub-thumping.

Furthermore, he wants some assurance that this information is reasonably trustworthy and free from bias.



The new Bonded Floors book, "Analyzing the Problem of Finished Floors in Schools," was written *by architects.*

We felt that the best way to get an unprejudiced point of view was to turn the preparation of this study of school floors over to architects familiar with school planning.

Since the Bonded Floors Company manufactures and installs so many different types of floors suitable for school use, it has never been necessary for us to do any special pleading. The problem is to analyze each division of a school building—classroom, corridor, library, gymnasium, etc.—to discover which flooring material will be most satisfactory in that particular area. This analysis has been simplified and clarified by the use of charts, one of which is produced below.

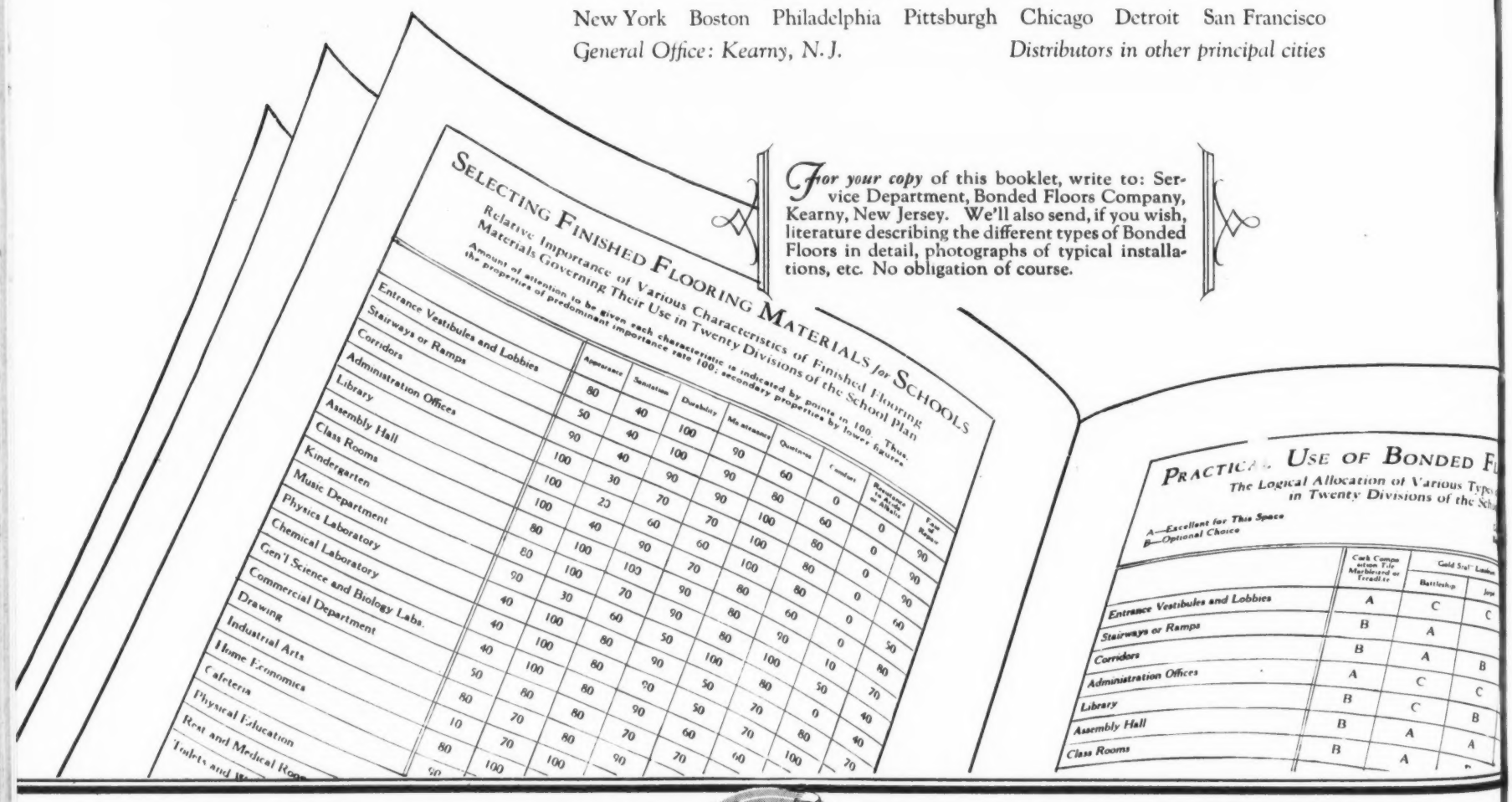
In short, an honest attempt has been made to have "Analyzing the Problem of Finished Floors in Schools" live up to its name—to make it an impartial analysis rather than a one-sided sales talk. We think that you will find this booklet interesting—and worthy of preservation in your information file.

BONDED FLOORS COMPANY, INC.

New York Boston Philadelphia Pittsburgh Chicago Detroit San Francisco

General Office: Kearny, N. J. *Distributors in other principal cities*

For your copy of this booklet, write to: Service Department, Bonded Floors Company, Kearny, New Jersey. We'll also send, if you wish, literature describing the different types of Bonded Floors in detail, photographs of typical installations, etc. No obligation of course.



SELECTING FINISHED FLOORING MATERIALS *for* SCHOOLS

Relative Importance of Various Characteristics of Finished Flooring Materials Governing Their Use in Twenty Divisions of the School Plan

Amount of attention to be given each characteristic is indicated by points in 100. Thus, the properties of predominant importance rate 100; secondary properties by lower figures.

	Appearance	Sanitation	Durability	Maintenance	Quietness	Comfort	Resistance to Stains or Marks	Ease of Repair
Entrance Vestibules and Lobbies	80	40	100	90	60	0	0	90
Stairways or Ramps	50	40	100	90	80	60	0	90
Corridors	90	40	100	90	100	80	0	90
Administration Offices	100	30	90	90	80	80	0	90
Library	100	20	70	70	100	60	0	60
Assembly Hall	100	40	60	60	100	80	0	90
Class Rooms	80	100	90	70	100	80	0	90
Kindergarten	80	100	100	90	80	80	0	90
Music Department	90	30	70	90	80	60	0	60
Physics Laboratory	40	100	60	50	80	90	0	50
Chemical Laboratory	40	100	80	90	100	100	10	80
Gen'l Science and Biology Labs.	40	100	80	90	50	80	50	70
Commercial Department	50	80	80	90	50	70	0	40
Drawing	80	70	80	90	60	70	80	40
Industrial Arts	10	70	80	70	70	60	100	70
Home Economics	80	100	100	90	70	60	100	70
Cafeteria	50							
Physical Education								
Rest and Medical Rooms								
Toilets and Washrooms								

PRACTICAL USE OF BONDED FL

The Logical Allocation of Various Types in Twenty Divisions of the Sch

A—Excellent for This Space
B—Optional Choice

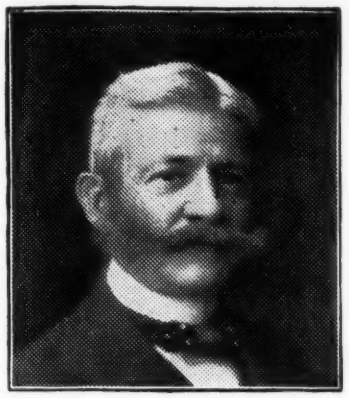
	Cork Composition Tile Marblezo or Treadlite	Gold Seal Linoleum	
		Battleship	
Entrance Vestibules and Lobbies	A	C	C
Stairways or Ramps	B	A	
Corridors	B	A	B
Administration Offices	A	C	C
Library	B	C	B
Assembly Hall	B	A	A
Class Rooms	B	A	

BONDED FLOORS

ISSUED BY U.S. FIDELITY AND GUARANTY CO.

Resilient Floors Backed by a Guaranty Bond

ee preceding page



HOLDEN BOOK COVERS

are designed and built especially for use in the public schools —

To increase the lives of the books To keep them clean, neat and sanitary
To protect them from daily wear, weather and waste

IT IS THE COVER BEST ADAPTED FOR SCHOOL USE

Therefore, whether you buy your own Covers or those furnished by advertisers, be sure and specify "HOLDEN" and thus obtain the saving and protection of the books so important to the community.

HOLDEN PATENT BOOK COVER COMPANY
MILES C. HOLDEN, President **SPRINGFIELD, MASSACHUSETTS**

(Continued from Page 78)

school students $24.03 during February of the school year 1927-28. Los Angeles in the second and final payment for the county received $1,652,446 for high-school purposes, and $1,189,572 for elementary purposes. Alameda county with $431,098.20 for high schools, and $289,234.08 for elementary was the next largest beneficiary.

—Olympia, Wash. The voters of the school district in March approved a bond issue of $40,000 for the purpose of paying off the warrant indebtedness of the district. The refunding of the bonded indebtedness will effect a saving of $1,000 for the school district, since the outstanding warrants draw seven per cent interest and the bonds draw about four and one half per cent interest.

—A school survey completed at Madison, Wis., carries with the recommendation that $1,000,000 be expended within the next fifteen years for new school buildings. The *Madison Journal* in commenting on the subject says: "A school system no longer is a thing built upon the patchwork idea, of adding something here and there where a pressing need arises. It is a matter of surveying the city, accounting for present and coming population, and thus of affording the greatest convenience to the greatest number of parents and children. We believe the matters which the Madison school board are now projecting are of the first importance to the city."

—The cost of instruction per pupil in kindergarten and elementary schools is much lower than in high schools although the enrollment of teachers in the former is greater than that in the latter, as reported by the United States bureau of education.

In 1926 the average number of pupils enrolled per kindergarten teacher in cities of 10,000 or more population was 56; per elementary teacher, 38; per junior teacher, 29; and per high-school teacher, 26. The average annual cost of instruction per pupil in average daily attendance, in 1926, was $53.55 per kindergarten pupil, $63.50 per elementary-school pupil, $86.91 per junior-school pupil, and $116.57 per high-school pupil.

—The United States bureau of education recently issued a statement on school budgets. It says that "A city-school budget is usually apportioned to expenditures devoted to general control, instruction, maintenance of the school plant, operation of the school plant, supplies, fixed charges, auxiliary agencies, and capital outlays. The cost per pupil for each of these eight items is shown in this bulletin, as well as statistics showing the number of pupils, statistics showing the number of pupils enrolled in kindergartens; elementary grades; high schools including junior departments, vocational schools, normal schools and colleges under the direction of local school boards; special schools, or schools for the blind, deaf, crippled and tubercular, and evening classes; number of pupils in average daily attendance; number and value of school buildings, value of grounds and contents of buildings, receipts, as well as sources from which they are obtained; expenditures, under the eight principal headings for expenditures; and the amount of bonds and payments toward outstanding indebtedness."

—At Tacoma Wash., the claim is made that the Pierce County Taxpayers' Association is controlled by manufacturers, who oppose the school-bond issue because one half of the money would go for wages at $4.50 a day, whereas the factories pay only $3 a day.

—"Windsor in past years went crazy over schools and now we have to pay the shot" said Alderman Garret Edwards of Windsor, Canada, recently. "But it is time to clip expenditures. It has been in the past that where they have an additional 15 students and no stylish place to put them, they start in and build another millionaire school. We've been going ahead like millionaires with our school construction, but it's come now that the average taxpayer can't stand it any longer. Fifty per cent of the taxes went for schools last year and our unpaid taxes are nearly $1,000,000. Cost of schools in Windsor is away above any city we ever heard of. There's been too much style, and it's time auditoriums in the schools were used for classes, if there is congestion."

—The Minneapolis, Minn., board of education borrowed $500,000 just 90 minutes before a payroll amounting to $521,268 was due. The difficulty was caused by the city's involved financial situation which has resulted in the bringing of a suit against the city finance officers, challenging the right of the city to incur any additional bond obligations on the ground that the debt limit already has been exceeded by more than $900,000.

—Buffalo, N. Y. The school board has adopted a program of service outlined by Supt. E. C. Hartwell, which makes it possible to save $300,000 dropped from the budget. It is believed the most essential courses can be continued in the night schools on the same basis and within the appropriation of $150,000 provided in the budget. Under the new plan of economy in operation, all pupils will be obliged to pay the cost of the expenses of special courses which they select.

—Chicago, Ill. Mr. H. H. Brackett, auditor of the school board, has prepared figures showing a threatened deficit of $2,205,000 in the estimated budget for the year. The 1927 budget amounts to $84,046,620, or an increase of $7,003,221 over that of last year.

The probable deficit is due, according to Mr. Brackett, to the increased cost of operation brought on by the order making 2,100 janitors civil-service employees. An increase of $1,815,000 in salaries will have to be paid this year to persons who have become civil-service employees through the order.

President J. L. Coath has declared that no extensive reductions in cost will be made, but savings will be effected wherever possible. No essential activities will be curtailed and building construction will not be reduced in any way.

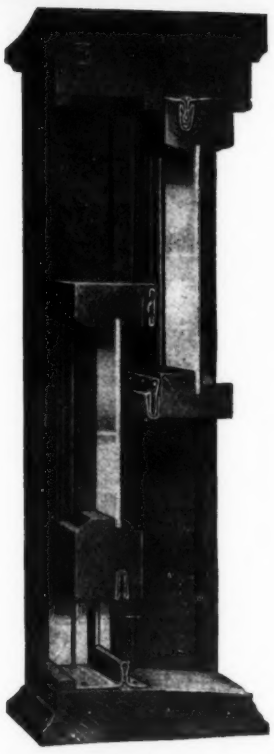
—Sioux City, Iowa. The school board has indicated that there will be a need for economy due to the rejection of the $150,000 tax levy for build-

(Continued on Page 84)

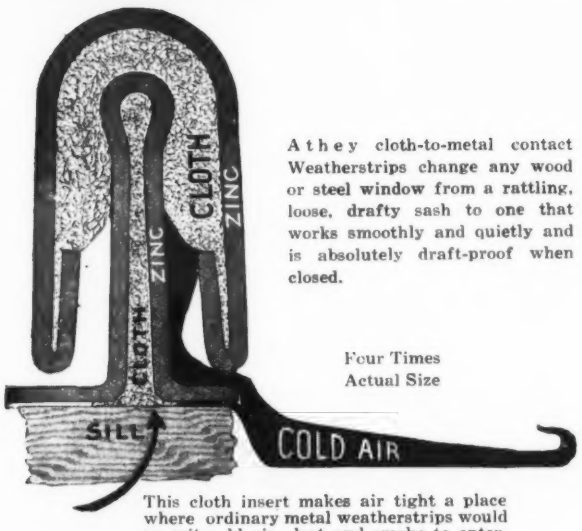
WHAT THE SUPERINTENDENT MUST KNOW

He must know not only the best classroom procedures but also how to build up and direct a system of supervision that will develop teachers that can and do use them. He must know the modern psychology of learning and be able to put it into effect in his classrooms. He must know the science of budgeting, the technic of publicity, and the persuasion to secure needed revenues. He must know how to show the taxpayers that their money is expended wisely. He must know how to carry on or direct research work. He must know the technic of tests and measurements; their uses and misuses as well. He must understand the tremendously significant movement now on in curriculum making and be able to direct it in his own system.—A. J. Stoddard, Superintendent, Schenectady, N. Y.

Athey weatherstrips



Now is the opportune time to plan for improvements to be accomplished during the Summer months when the schools are vacant. A *cold school room last year* may easily be a ***warm one next winter.*** Ordinary shades that darken the rooms may be replaced by ATHEY SHADES which can be instantly adjusted to keep out the glaring sunshine, yet allow light to enter from above and through the translucent material so that all seats have sufficient light.



Athey cloth-to-metal contact Weatherstrips change any wood or steel window from a rattling, loose, drafty sash to one that works smoothly and quietly and is absolutely draft-proof when closed.

Four Times Actual Size

This cloth insert makes air tight a place where ordinary metal weatherstrips would permit cold air, dust and smoke to enter.

Increase Class Averages with Comfortable Class Rooms

ATHEY WEATHERSTRIPS increase class averages. Cold pupils cannot study or concentrate on class work. It costs very little to make schoolrooms draft-proof when compared to the saving in fuel and the benefits to the school averages.

Athey Weatherstrips Quickly Pay for Themselves

Records show that it seldom takes three years for the saving in fuel to pay for the installation of Athey Weatherstrips, not taking into account the saving because of cleaner rooms and less fuel and ashes to handle.

The Fuel Saving Is Astounding

Tests have shown that the average window in a 45-mile an hour wind, allows $2\frac{9}{10}$ cu. ft. of cold air to enter the room every minute. When ATHEY Weatherstrips are installed, less than ¼ cu. ft. of cold air can enter. Leaky windows not only cause uncomfortable pupils, but necessarily waste fuel because of a forced heating plant. ATHEY Cloth-Lined Metal Weatherstrips last the life of the building.

A modern building in Chicago saved 572½ tons of coal in five months at a value of $3,400.00. The Athey installation cost only $4,900.00.

A Few Athey Weatherstripped Schools and Colleges

Streator High School, Streator, Ill.
Purdue University, Lafayette, Ind.
Hamline University, St. Paul, Minn.
Harvard University, Cambridge, Mass.
New Sherman School, Cranford, N. J.
Hecksher Foundation for Children, New York City.
Wesleyan University, Middleton, Conn.
Johns Hopkins University, Baltimore, Md.
Spearfish High School, Spearfish, S. Dak.
State University, Omaha, Nebr.
Woodlawn High School, Birmingham, Ala.
University of Tennessee, Memphis, Tenn.
Main High School, Vicksburg, Miss.
University of North Carolina, Chapel Hill, N. Car.
West Intermediate School, Davenport, Ia.
Alamo School, San Francisco, Calif.
Farmington High School, Farmington, Ill.
Chesterland School, Chesterland, Ohio.
Cattaragus School, Cattaragus, N. Y.
Bowdoin College, Brunswick, Maine.

Add comfort and save money:

SCHOOLS
—
HOSPITALS
—
HOTELS
—
OFFICE BUILDINGS
—
FACTORIES

Send for this New Athey Book

It contains valuable information for any building owner or manager, architect or engineer desiring to save fuel, prevent drafts, and increase comfort.



and Shades



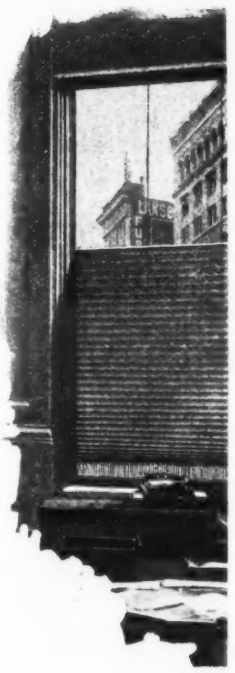
Save the Children's Eyes

Sunlight without Glare
Fresh Air without Draft

ATHEY SHADES are ideal for the Schoolroom. They have demonstrated their effectiveness in hundreds of the finest schools in every State in the Union.

Preservation of eyesight is one of the most important reasons for the demand for ATHEY SHADES in the school building.

Details of specifications, as outlined by the Bureau of Education, are met in practically every item by the operation and material of the ATHEY SHADE. They are instantly adjustable to shade any part of the windows whether they be steel or wood, ordinary sash, casement, or of the tilting type. The edges are eyeletted and slide on taut guide wires which hold the shade from the window or from flapping out the window to become soiled and torn. Opaque shades specially fitted to make room lightproof for motion pictures. The material is a special weave of coutil which resists dust and dirt, very strong and durable, and is easily cleaned in case of necessity.



Fern St. School,
West Hartford,
Connecticut.

Fully equipped
with
Athey Perennial
Shades.

Special Features

ATHEY SHADES are made of high-grade coutil, herringbone weave, 200 threads to the square inch, mercerized and calendered to a smooth finish. Resists dirt. Dyed in seven non-fading colors to harmonize with various color schemes. Always the same distance from the window. No rollers, latches, catches or springs to slip, stick or break. In any length and in widths up to 16 feet. Sunbursts for circle-head, segmental or Gothic windows. Also operating shades for skylights.

They lower from the top and raise from the bottom, instantly adjustable to shade any part of the window. They cannot flap out the window to become soiled or torn.

Athey

PERENNIAL WINDOW SHADES

Our new Catalog and list of installations sent on request

ATHEY COMPANY

6053 WEST 65TH STREET CHICAGO, ILLINOIS

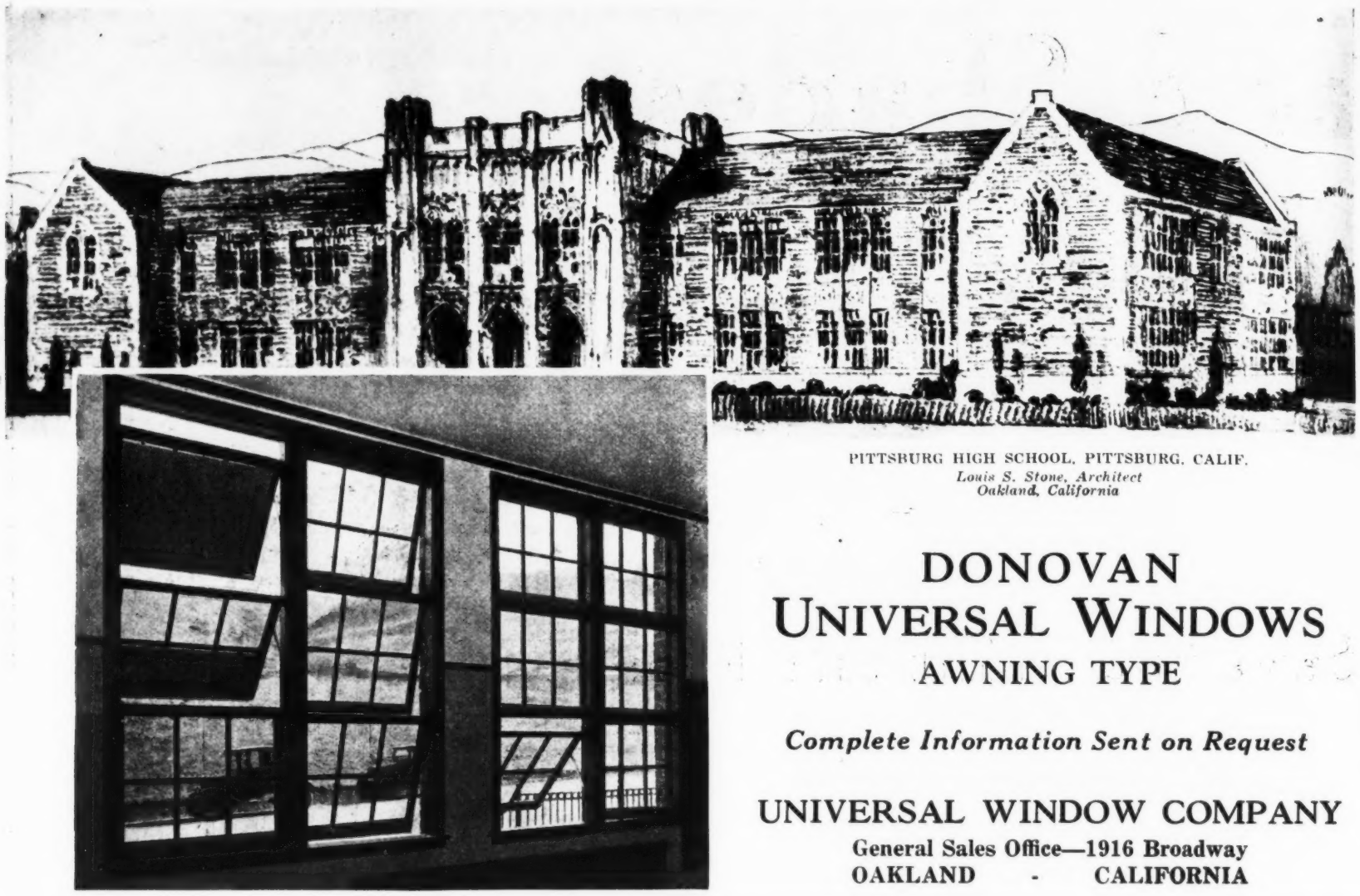
New York City: F. H. KEESE, 7 East 42nd St.

Detroit: W. O. LeSage & Co., 410 Donovan Bldg.
Cresswell-McIntosh, Reg'd—420 Seigneurs St., Montreal, Que.

A Few Athey Shaded Schools and Colleges

Parma High School, Parma, Ohio.
Vermilion High School, Vermilion, Ohio.
School for Museum of Fine Arts, Boston, Mass.
University of South Carolina, Columbia, S. Car.
National Kindergarten College, Wilmette, Ill.
St. Mary's High School, Royal Oak, Mich.
Wm. Penn Charter School, Philadelphia, Pa.
Ohio State University, Columbus, Ohio.
Union High School, Deming, Wash.
University of Hawaii, Honolulu, Hawaii.
South Euclid High School, South Euclid, Ohio.
State Normal College, Cortland, N. Y.
Haverling High School, Bath, N. Y.
Saginaw High School, Saginaw, Mich.
University of Illinois, Urbana, Ill.
Woodrow Wilson School, Long Beach, Calif.
Fern St. School, Hartford, Conn.
Arlington School, Spokane, Wash.
State Teachers College, Minot, N. Dak.
Alameda High School, Alameda, Calif.

AWNING TYPE WINDOWS EXCEL FOR SCHOOLS



PITTSBURG HIGH SCHOOL, PITTSBURG, CALIF.
Louis S. Stone, Architect
Oakland, California

DONOVAN
UNIVERSAL WINDOWS
AWNING TYPE

Complete Information Sent on Request

UNIVERSAL WINDOW COMPANY
General Sales Office—1916 Broadway
OAKLAND - CALIFORNIA

(Continued from Page 81)

ing additions to schools. Funds will be needed to carry out other means of relieving congestion in school buildings.

—The attorney general of Missouri has ruled that the St. Louis board of education is entitled to state money for its teacher-training work, irrespective of whether or not it gives an extension course for teachers in the high schools.

Teacher training in St. Louis is conducted in Harris Teachers' College. In addition to training young people for teaching positions, the institution offers an extension course for teachers in the elementary and high schools.

—Approximately $700,000 in school funds has been distributed among the schools of the state of Arkansas.

—Supt. Heber U. Hunt of Sedalia, Mo., in a talk before the school board association of Pettis county, discussed the cost of education now as compared with that of a few years ago. Mr. Hunt pointed out that, since the dollar doesn't buy as much as it formerly did, the teacher must have more in order to live, and teachers' salaries should be increased rather than decreased. He urged the board members to accept the new valuation of the dollar and pay the teachers accordingly, in order to have competent teachers and permit them to live comfortably.

—Maryville, Mo. The school board has adopted the regular tax levy of 60 cents in addition to a 40-cent levy authorized by the voters on April 3.

—North Providence, R. I. The school board has asked for an increase of $12,000 in the school budget, making a budget of $122,000 for the school year 1928-29. The largest amount in the budget is $74,000 for teachers' salaries.

—The voters of Riverside and Brookfield, Ill., recently voted on a bond issue of $250,000 and a two-cent tax levy for the erection of new schools in each suburb.

—Brookline, Mass. The school board has adopted a budget of $4,160,513 for the school year 1928-29. The largest item in the budget was $608,874 for instructional service.

—Detroit, Mich. The internal accounting system of the school board, which was attacked in a recent report on the budget sent to the council by the governmental committee of the commerce board, has been vigorously defended by Supt. Frank Cody.

The internal fund is a separate bookkeeping system maintained by the board without submission to the city comptroller and comprises funds derived from self-supporting activities such as lunchrooms, athletics, the law school, and the teachers' college.

Mr. Cody points out that the board includes in its budget only those items for which city taxes are to be spread. On the other hand, the governmental committee holds that the board should include details of its revenue and expenditure from self-supporting activities in the budget it submits to the comptroller.

—Flint, Mich. The school budget for the year 1928-29 calls for an appropriation of $2,507,000.

—Councilman F. W. Castator of Detroit, Mich., has criticized the board as extravagant because of its request for $5,000,000 worth of new schools, and has intimated that only a part of the amount will be retained in the school budget. Mr. Castator points out that, while there has been a lightening of the bonding restrictions on the city, still the finances have not reached a point where the city

(Concluded on Page 86)

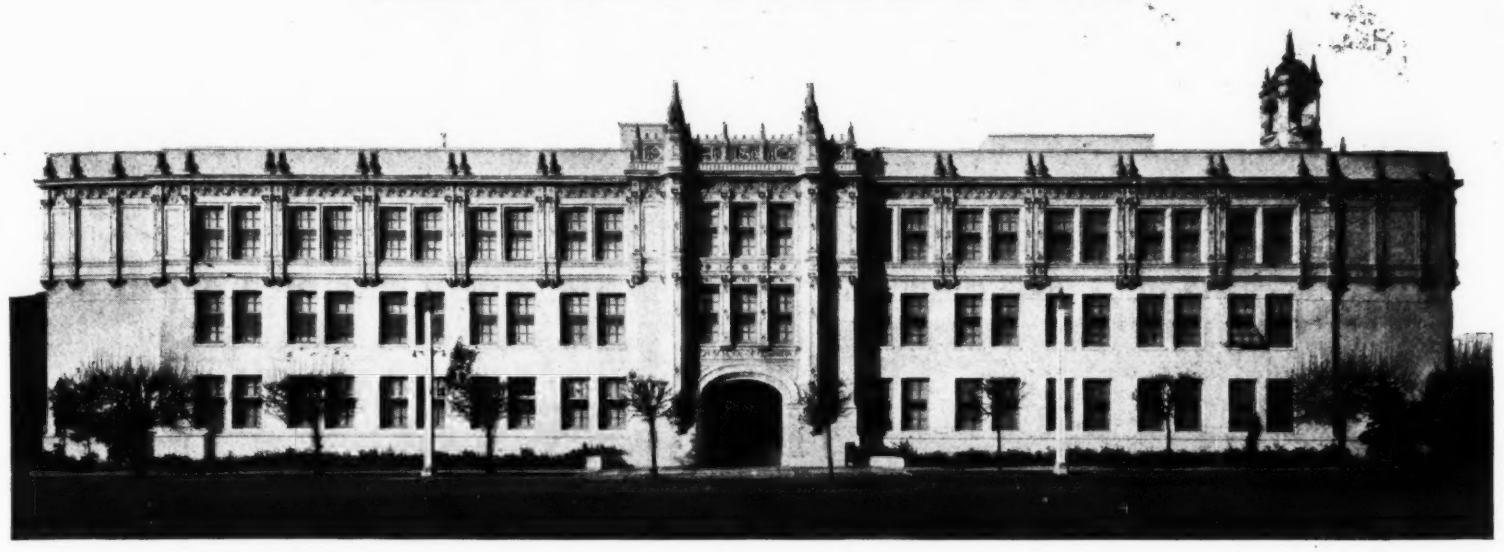


PLANNING AN EDUCATIONAL EXHIBIT

The school executives of New York City planning the educational exhibit for the Parents' Exposition held at the Grand Central Palace. Seated: Harold G. Campbell, associate superintendent; Dr. William J. O'Shea, superintendent of Schools; George J. Ryan, president, board of education. Standing: Joseph Miller, Jr., secretary, board of education; Frank R. Rexford, director of civics; Maximillian Komow, engineer.

The Ideal Illumination for Schools

CELESTIALITE



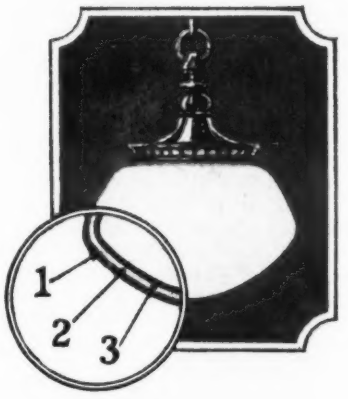
This new three-layer lighting globe is safeguarding the eyesight of millions of students in America's schools.

IN THE new High School of Commerce, San Francisco, young men and women of today are training to fill the executive positions of tomorrow. Wisely, their school board has installed Celestialite, the remarkable Next-to-Daylight light.

They knew that Celestialite's soft, day-like radiance could not tire the students' eyes or fag their brains. It appreciated the comfort and cheer that Celestialite would bring—it valued the accuracy and progress it meant to both student and teacher.

Fortunate indeed are these young business people, for Celestialite is the light closest to daylight—and human eyes, young and old, love daylight best. Let Celestialite shine in your own institution—you cannot appreciate its quality until you have seen a lighted sample displayed in your office. Just mail request on business stationery.

Mail coupon for free Celestialite catalogue and fragment, showing three layer construction. Gleason-Tiebout Glass Co., Celestialite Div., 200 Fifth Avenue, New York.



Celestialite's Three Layers:

1—An inner layer of blue whitens and perfects the light.

2—A middle layer of white filters out all the glare.

3—An outer layer of crystal glass, provides body and strength.

A marvelous soft white light results that safeguards the eyesight

CELESTIALITE

(PATENTED)

NEXT TO DAYLIGHT

GLEASON-TIEBOUT GLASS CO. (Celestialite Div.) ASJ-5
200 Fifth Avenue, New York City

Kindly send me free Catalogue and fragment of Celestialite showing its three layer construction.

Name .....

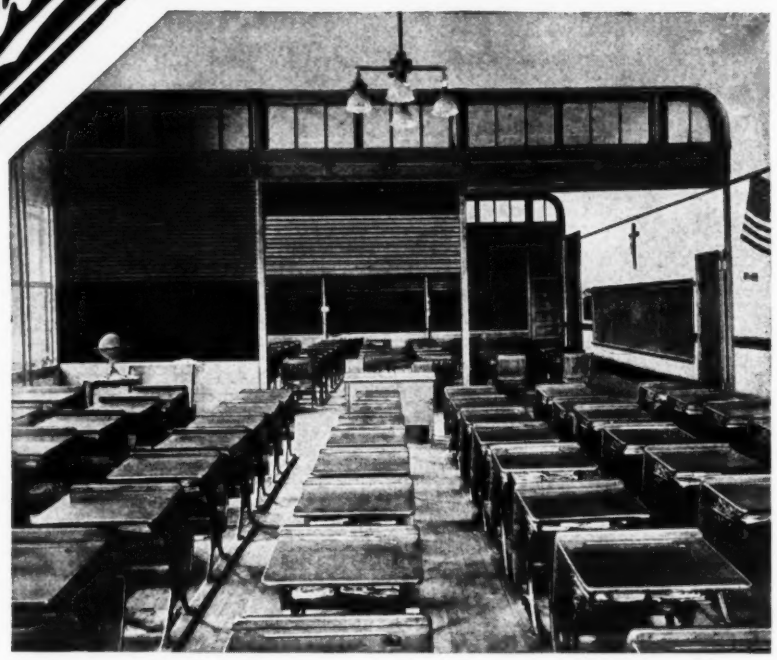
Position .....

Address .....

City .....

Wilson

ROLLING PARTITIONS



St. Patrick's School, Jersey City, N. J. John T. Rowland, Architect

The partitions (horizontal type) may be rolled up out of the way, and posts removed, leaving the entire opening clear.

OVER FIFTY YEARS IN BUSINESS

Divide the Room As Occasion Demands

A QUICK, effective division of space is accomplished by Wilson Rolling Partitions. When the Partitions are lowered, each room is completely separated from the others; and when necessary, all may be combined into one.

They roll overhead or sideways. They take up practically no space and are substantial and attractive in appearance. A portion of one side of the horizontal partition can be finished with black silicate, providing additional blackboard surface.

They are installed in many hundreds of schools and other institutions and are recognized as standard by Architects and School Authorities the country over.

Write for 40-page Catalogue No. 14

THE J. G. WILSON CORPORATION
11 East 38th Street, New York City
Offices in all principal cities

Also manufacturers of sectionfold partitions and school wardrobes

(Concluded from Page 84)

can afford to finance construction years in advance of school needs.

In taking up requests for new schools, it will be the policy of the council to consider elementary schools first because of the great need in the lower grades. When half-day sessions have been eliminated for the lower-grade children, attention will then be given to the higher grades.

—Chicago, Ill. The school board is faced with a deficit of $2,205,991 from expenditures during the past year. As a result, the board will ask for a budget of $84,046,620 for the school year 1928-29. The cost of the educational program alone has been estimated at $48,250,459.

—Tacoma, Wash. The school board has prepared a budget calling for an appropriation of $1,946,644 for the school year 1928-29, which is $90,317 more than will be received from all sources during the same period. The main increases in the budget for next year are $19,000 for maintenance and $45,000 to $50,000 for teachers' salaries.

—Pawtucket, R. I. The school board has adopted a budget of $220,125 for the school year 1928-29. The largest item in the budget is for teachers' salaries.

—Springfield, Mass. A subcommittee of schoolmen has been appointed to protest to the mayor against the proposed reduction of $38,000 in the school budget. The school board is prepared to prove that the school system will be seriously handicapped through such a large reduction. The mayor has intimated that he will not change his figures and he points out that the budget was adopted after careful study of the year's needs.

—Lincoln, Nebr. The school board has adopted a budget of $992,000 for instructional service during the school year 1928-29. The items represent an increase of only $4,000 over the budget for 1927-28.

—The voters of Milwaukee, Wis., at the April election decreed an additional mill tax for a period of five years which will net the sum of one million dollars for new school buildings.

—"Children nowadays stay in school longer because parents are financially able to send and because people generally believe that more school preparation than formerly is now needed for success in life" says the Detroit Educational Bulletin. "Another reason for larger annual expenditures than seem to be justified is the success of the movement during the last decade for more adequate teachers' salaries. No thoughtful person will regret that teaching has finally made progress in the direction of an adequately remunerated calling."

—When in 1962, Indianapolis, Ind., gets through paying off $12,441,000 school bonds issued since 1900, the city will have paid $1.90 for every $1 of bonds issued, according to figures prepared by Albert W. Walsman, school business director. The interest on $12,441,000 will reach the staggering sum of $11,282,867. It is Mr. Walsman's recommendation that a direct tax should take the place of bond issues.

—Rodger W. Babson, the economist, in discussing school costs recently said: "The American people are spending about $2,000,000,000 a year on public-school education. One quarter of state and local taxes go for schools. Back in 1910 we spent $426,000,000. That means an increase of 370 per cent in 17 years. Some of this increase of course, was due to rising prices of school equipment, salaries, etc. Also school attendance is much greater, thus making new buildings and equipment, teachers, etc., necessary. The question, however, is not so much whether we are spending too much on public education, but whether we are getting returns proportionate to the investment. The people have a right to expect good dividends on this huge investment—dividends in the form of better citizenship and stronger character, as well as the raising of general intelligence standards."

—A half million bond-issue proposal for a new school was twice defeated at Oradell, N. J. Recently the people voted $300,000 for that purpose.

—A $5,000,000 school-bond issue was defeated by the voters of Kansas City, Mo. It is believed, according to Vice-Pres. E. C. Meservey of the board of education that the question will be resubmitted to the voters. Among the many reasons urged for the defeat of the bond issue is one which holds that the people were not sufficiently informed on the subject.

—The school board of Tacoma, Wash., has been compelled to reduce its budget by approximately $100,000 in order to come within the estimated revenues amounting to $1,630,000. The board has effected numerous economies, among them a reduction of the teaching staff by 23 teachers, a reduction of the amount for maintenance, and other changes.

—The school board of New London, Wis., has been forced to reject all bids and to postpone the proposed high-school building for two years because of a lack of funds and a limited bonding power. The board has created a building fund, which will be increased by means of additional amounts until 1930, when it is expected that sufficient funds will be on hand for the erection of the building. The board was forced to take the action very much against its will because the present time appeared ripe for the erection of the building, and it could be erected for much less than was possible a number of years ago.

—The board of education of Springfield, Mo., has secured the services of Dean G. Neale of the University of Missouri to examine the several school buildings and score them on the following points: Playground facilities, the environment of the building site, the general condition of the building itself, its accessibility, the drainage, the character of the stairways, corridors, entrances, basement, heating and ventilation systems, fire-protection system, the cleaning system, water-supply system, toilet system, and the location, construction, illumination, and equipment of classrooms and special rooms.

—The new addition to the Riley township centralized school, near Columbus, Ohio, was dedicated with J. L. Clifton, state superintendent, as the principal speaker.

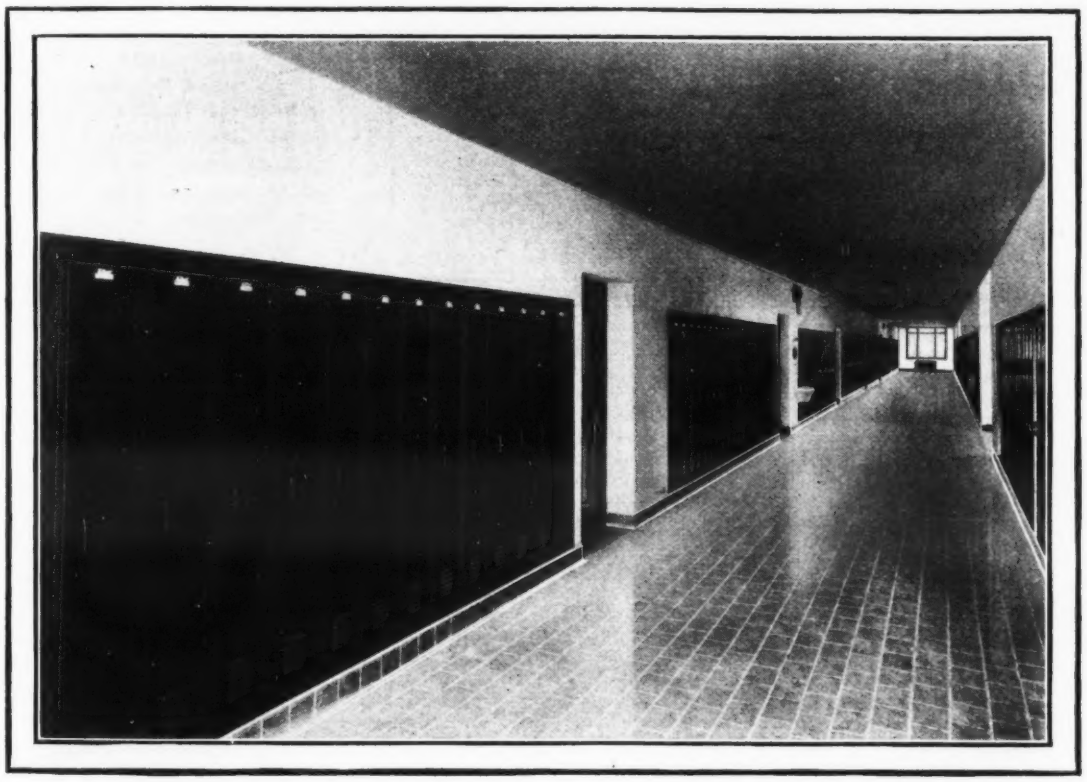
KEEPING THE PEOPLE INFORMED

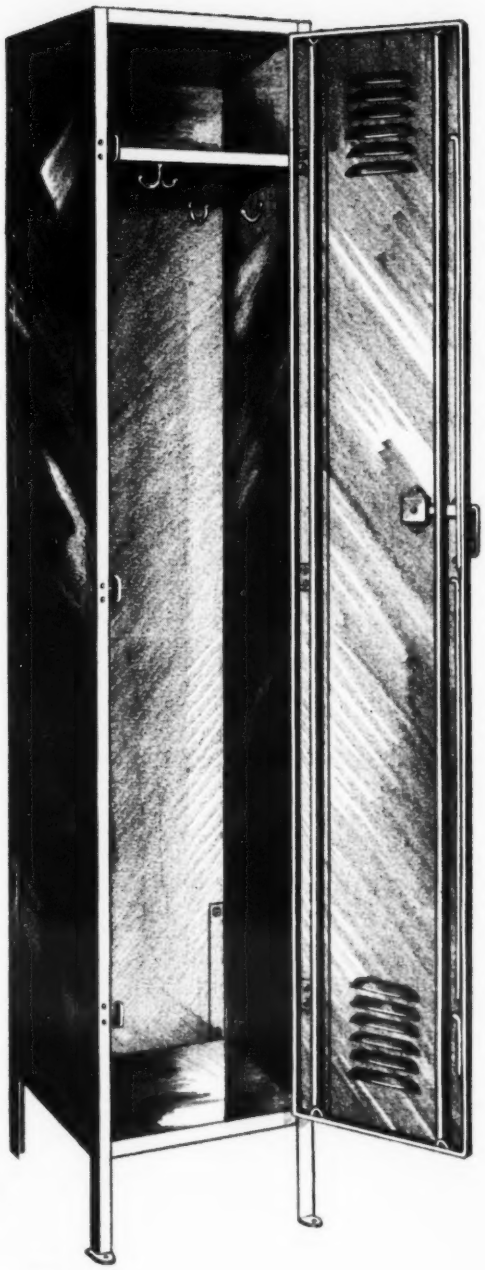
The intelligent citizen becomes suspicious of the school administrator, if he hears nothing concerning the schools except when money is needed. A sane continuous publicity program covering all phases of school activity will render unnecessary, occasional, frantic appeals for public support.

The typical school report is not only uninteresting but often unintelligible to the average citizen. If the public fails to adequately understand and appreciate the needs of the schools, the responsibility rests squarely upon the superintendent and his staff. The expense incident to a sane continuous publicity program is just as legitimate a part of the school budget as the advertising budget of a progressive business house.—John Lund, Superintendent of Schools, Norwalk Connecticut.

LYON

Every thirty miles in Iowa you can see an installation of Lyon Steel Lockers, Shelving or Cabinets. Des Moines has thirteen of her schools, and Sioux City a dozen, equipped with Lyon Lockers. One installation sells another. The frames of Lyon Steel Lockers are strong. No other door is as rigid nor more solidly hinged. The locking device is practically everlasting. The finish is durable. Lyon Steel Lockers are a true economy. Without cost, you and your architects may draw upon the experience of Lyon Engineers who have planned Lyon installations for every state. Write about your locker needs and ask for complete literature. Lyon Metallic Manufacturing Company, Aurora, Illinois

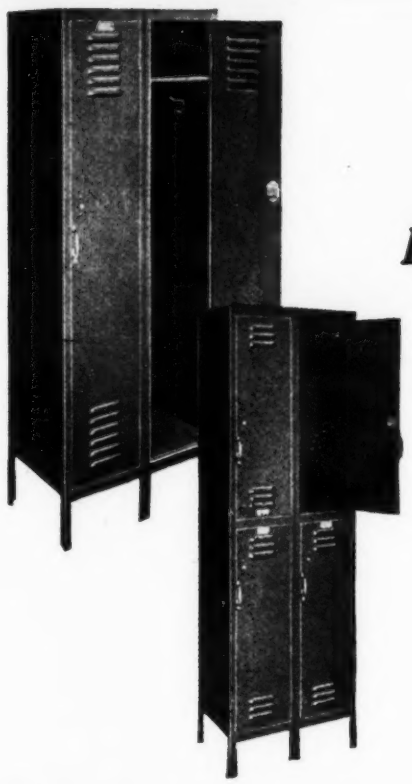




STEEL LOCKERS

LYON STEEL PRODUCTS

Steel Shelving . . . Lockers . . . Cabinets . . . Counters . . . Steelart Folding Tables and Chairs. General Steel Storage Equipment and Steel Furniture. The Lyon name and trade mark attest the strength, finish, usefulness and durability of Lyon Steel Products.



All-Steel-Equip Company

LOCKERS

Built to meet each locker need

NO other piece of equipment in the school receives the wear and tear that lockers must undergo. School engineers with an eye to permanence specify A-S-E lockers because of their sturdy construction. Their concealed hinges will not break or allow the door to sag. Their tops and sides are specially reinforced for extra strength. There is a strong semi-automatic latching device. On the whole, A-S-E lockers are splendid examples of engineering thought and skill.

A-S-E lockers are a permanent investment for your building—They will endure under the most exacting conditions imposed by careless school children.

All-Steel-Equip Company

200 JOHN ST. — Main Office and Factory — AURORA, ILL.

District Offices and Warehouses

NEW YORK—423 W. 39th St.
PHILADELPHIA—134 N. 4th St.
CHICAGO—35 S. Desplaines St.
CLEVELAND—823 Prospect Ave.
KANSAS CITY—403 Hall Bldg.
MILWAUKEE—141 E. Wisconsin Ave.
DETROIT—231 Iron St.
TOLEDO—1825 Vermont Ave.

For Your Files.

Our C-25 Catalog will give you detailed information on locker installations — the various types which can be supplied, lockers adaptable to your space and needs. May we send you a copy?

Steel Racks



No. 701

—for books and extra storage space.

Equipped with four shelves adjustable on three inch centers without the use of tools, this rack, 34"x12"x 77" overall, gives extra storage space for supplies. It is especially suitable for books. Dark green baked enamel finish insures a smart appearance in any office or room.

NEW RULES & REGULATIONS

ST. LOUIS SCHOOL BOARD ADOPTS NEW RULES

The school board of St. Louis, Mo., has adopted new rules governing the administration of the school system. The revised rules are as follows:

Standing Committees of the Board

The members of the board shall be divided into four department committees of three members each. The committees will be known as the committee on instruction, the committee on finance, the committee on school buildings, and the committee on auditing and supplies. It shall be the duty of the superintendent, the secretary and treasurer, the commissioner of school buildings, the supply commissioner, the auditor, and attorney to attend all regular and special committee meetings. There shall also be a committee on school sites, to be composed of the superintendent of instruction, the commissioner of school buildings, and the secretary and treasurer.

Department of Instruction

The superintendent, with the approval of the board, shall make such department or supplemental regulations for the management and conduct of the schools as he may deem proper. The regulations when approved by the board shall remain in force, and shall not be rescinded or annulled without the approval of the board.

There shall be six assistant superintendents of instruction, appointed by the board of education on the nomination of the superintendent of instruction, whose term of office shall be for two years commencing on the first day of September in each even-numbered year. An assistant superintendent elected to fill a vacancy caused by death, resignation, or otherwise, shall hold his office for the unexpired term.

Whenever, on account of death, resignation, or a change in the rules of the board, there are fewer assistant superintendents than the board provides for at the time, it is the duty of the superintendent of instruction, within 45 days from the time a vacancy occurs, to nominate for approval and appointment by the board of education, as many assistant superintendents as there are vacancies at the time.

At the regular July meetings of the board of education, the superintendent of instruction, with the approval of the board of education, must assign one assistant superintendent to the general administration and supervision of the high schools; another assistant superintendent to the general administration and supervision of the intermediate schools, continuation schools, vocational schools, and vocational counseling; another assistant superintendent to the general administration and supervision of the elementary schools; another assistant superintendent to the general administration and supervision of the special schools and classes and the psychoeducational clinic; and another superintendent to the general administration and supervision of the summer and evening schools, except those conducted in the demonstration schools affiliated with the teachers' colleges.

Within 45 days from the date upon which written proposals or reports are presented to the superintendent by an assistant superintendent, or the principal of the Harris Teachers' College, such proposals or reports must be presented by the superintendent of instruction, together with whatever comments he may wish to make, to the committee on instruction for the information of the board of education.

Annually, at the September meeting of the board of education, he shall designate, with the approval of the board, at least one half day and not more than the equivalent of two half days per week, except in case of emergency, on which his cabinet, composed of all the assistant superintendents and the principal of the Harris Teachers' College, shall meet to discuss matters of policy. When these days have been designated and approved by the board of education, they shall not be changed, except in case of emergency, for twelve months without the approval of the board of education. (In order that the members of the board may be able to keep themselves better informed concerning school affairs, every member of the board is privileged to attend these cabinet meetings. However, in order that the deliberations of the cabinet may not be hindered, members of the board who attend, must attend as onlookers only, and must neither participate in the discussions nor voice an opinion, at these meetings, under any circumstances.)

Within 45 days from the date on which written proposals or reports are presented to the superintendent of instruction by any examining board authorized by the board of education, such proposals or reports must be presented by the superintendent of instruction, together with whatever comments he may wish to make, to the committee on instruction for the information of the board of education.

Whenever, on account of death, resignation, increase in number of pupils, or for any other cause, there is a vacancy or a need for an additional teacher in an intermediate, high, or vocational school, it shall be the duty of the superintendent of instruction, within 60 days from the time the vacancy occurs or the need arises, to recommend to the board of education some qualified person for promotion or appointment to the position.

To determine the eligibility of candidates for appointments in the various types of schools, the superintendent shall conduct examinations under the rules of the board.

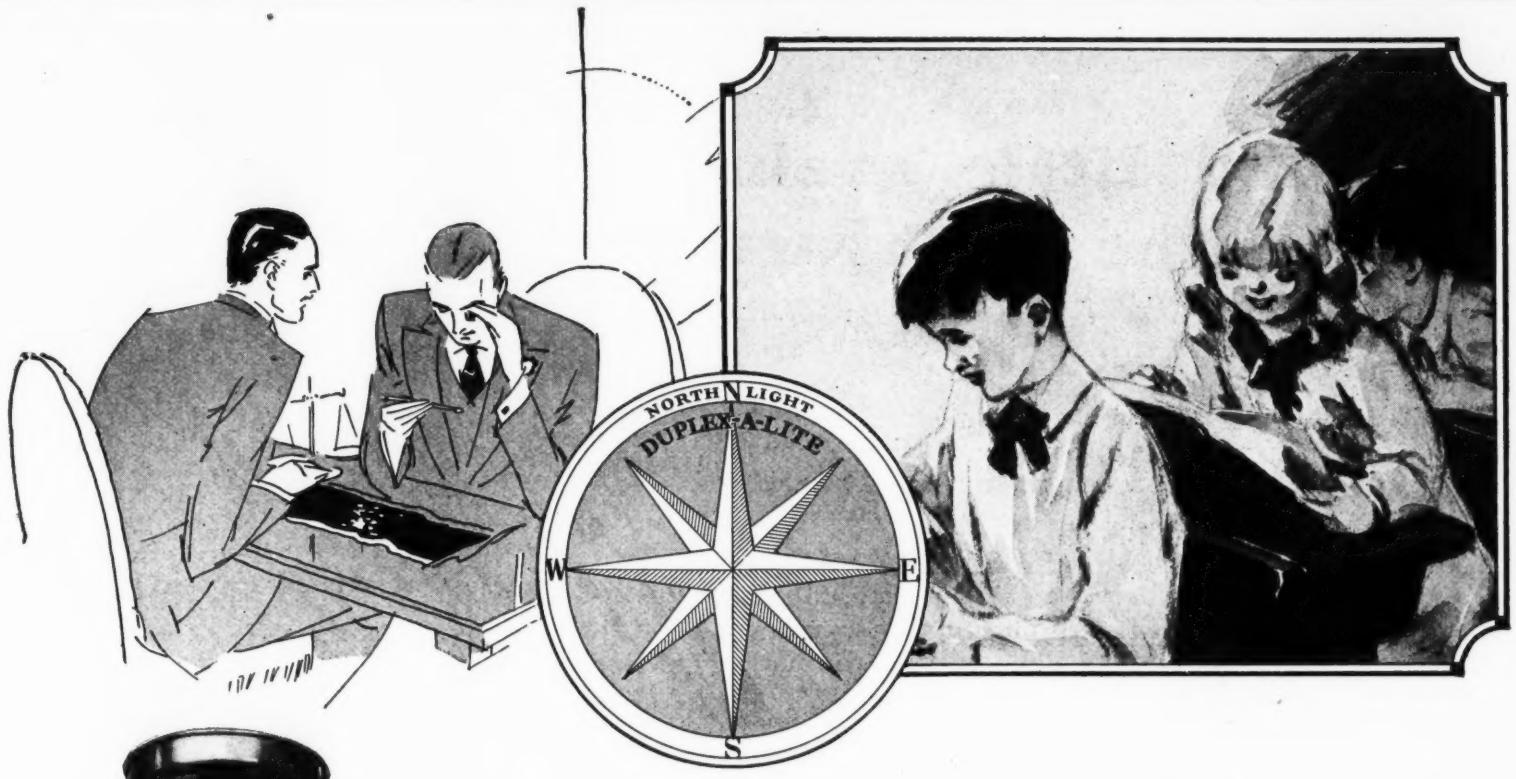
To fill vacancies in teaching positions or in administrative or supervisory positions in the instruction department, the superintendent of instruction shall make recommendations based on merit, ascertained, as far as practicable, in cases of promotion by length and character of service; and ascertained, as far as practicable, in cases of appointment by oral and written examinations. The word "promotion" is used here to cover all cases in which a person already serving in the instruction department is assigned to another position in the instruction department carrying with it greater responsibility, greater honor, or greater remuneration. "Appointment" is used only in connection with persons not already in the service of the instruction department.

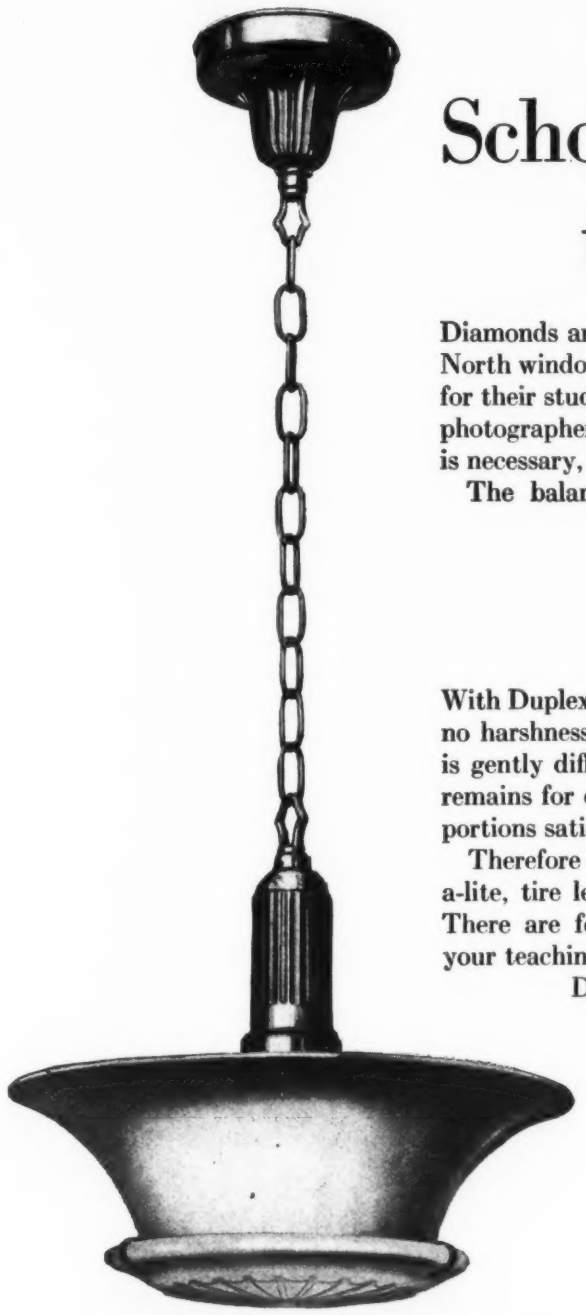
The superintendent of instruction shall have charge of the department of instruction and conduct the same in accordance with the act creating this board.

He shall, with the approval of the board, appoint for his department clerks and employees in such manner and at such salaries as may have been provided for by the board.

He shall exercise a general supervision over the public schools of the city, examine into their condition and progress, and see that all the rules prescribed for their government are faithfully observed. To this end he shall visit each school as often as practicable. He shall, with the approval of the board, make such department or supple-

(Continued on Page 90)





School Rooms can have the Light used by Diamond Buyers

Diamonds are always graded and bought under North window light. Artists insist on North light for their studios. So do sculptors, draftsmen and photographers. Wherever clear and easy vision is necessary, North light is preferred.

The balanced blend of direct and indirect illumination from Duplex-a-lite most closely approximates the clear and restful light from Northern windows. Surely children's eyes deserve this better light. In youth, eyes are saved or spoiled for a lifetime.

DUPLEX-A-LITE

IS LIKE NORTH LIGHT

With Duplex-a-lite there are no sharp shadows—no harshness, no glare. 80 per cent of the light is gently diffused from the ceiling; 20 per cent remains for direct illumination. Only these proportions satisfy all visual needs.

Therefore children study better under Duplex-a-lite, tire less, because there is no eye strain. There are fewer failures to "pass"—and thus your teaching costs are lowered.

Duplex-a-lites are distinctive fixtures. They are easy to clean and cost less to maintain, as there is a minimum of breakable parts. The use of Duplex-a-lite will save you money and help both children and teachers. These facts are easily proved. Let us demonstrate Duplex-a-lite under your own conditions.

Before lighting new schools get the facts about Duplex-a-lite. Ask for a free trial installation in one or more rooms of your present schools—without obligation.

DUPLEX-A-LITE DIVISION

OF THE MILLER COMPANY, MERIDEN, CONN.

"Pioneers in Good Lighting Since 1844"

SOME DUPLEX-A-LITED SCHOOLS

Glendale High School, Glendale, Calif.
Columbia University, New York
Oregon State College, Corvallis, Ore.
Edison High School, Harrisburg, Pa.
Babson Statistical Laboratory, Wellesley, Mass.
Newton Vocational School, Newton, N. J.
Polytechnic Institute, Brooklyn, N. Y.
University of Wisconsin, Madison, Wis.
John Crerar Library, Chicago
Hershey High School, Hershey, Pa.
La Salle Extension University, Chicago
West Hartford Schools, West Hartford, Conn.
New York University, New York City
Southington Schools, Southington, Conn.
Alhambra High School, Alhambra, Calif.
Public Schools, New York City
Santa Maria High School, Santa Maria, Calif.
Selma High School, Selma, Calif.
Reedley High School, Reedley, Calif.
Santa Ana High Schools, Santa Ana, Calif.

DUPLEX-A-LITE DIVISION
of The Miller Company,
97 Center St., Meriden, Conn.
Send me your School Lighting Booklet. ☐
We are interested in your free trial installation offer. ☐

NAME.....
ADDRESS.....
CITY.....STATE.....
SCHOOL.....

Myriad little grains to do the hard part of your cleaning!



WORK is just what you make it. And so with your cleaning. Easy or laborious, depending much on the material you use for doing it.

Make your cleaning easy by doing it with Oakite. For then myriad tiny crystals, sparklingly white—each loaded with cleaning energy and completely soluble in water—will do the hard part for you. You will find it amazingly easy to clean desks, windows, floors, walls, dishes and glassware, cafeteria equipment—in fact, everything with the aid of this safe, positive-action material.

Let our local Service Man point out the labor-saving advantages of doing all school cleaning the Oakite way. Simply ask to have him call—or write for booklet.

Oakite is manufactured only by

OAKITE PRODUCTS, INC., 26B Thames St., NEW YORK, N. Y.

OAKITE

TRADE MARK REG. U.S. PAT. OFF.

Industrial Cleaning Materials and Methods

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the United States and Canada.

(Continued from Page 88)

mental regulations for the management and conduct of the schools as he may deem proper. These regulations, when approved by the board, shall remain in force, and shall not be rescinded or annulled without the approval of the board.

He shall inform himself regarding the conditions of instruction and discipline in schools in other places, the progress of education at large, and, from time to time, suggest appropriate means for the improvement of the public schools in this city.

He shall report in writing, at the end of every quarter, or whenever required by the board, giving a detailed statement of the condition and prospects of the schools, and recommending such measures for their improvement as he may deem advisable. Such reports shall give the list of schools, and for each school the average number of pupils belonging, the number of pupils per teacher, the number of suspensions and number of cases of corporal punishment.

He shall attend all sessions of the board, and when requested, those of the standing committees.

He shall arrange courses of study for the schools, subject to the approval of the board.

He shall prepare the forms for the necessary school registers, books of record, directions and blanks for the use of the teachers.

He shall prepare and cause to be printed, semi-annually, payroll manuals showing the names and the salaries of the teachers, supervisors, and substitute teachers employed by the board of education; a list of eligible teachers who may be called on for substitute duty in the elementary schools; a list of eligible teachers who may be called on for substitute duty in the intermediate schools; and a list of eligible teachers who may be called on for substitute duty in the high schools, and such other matters of information as may be useful in connection herewith.

He shall supervise the monthly payrolls of the teachers as returned by the principals of the several schools, and certify the same.

He may order, with the approval of the board of education, from the printer having the general contract for the printing of the board, such printed matter as his department requires, and the cost of the same shall be charged to and paid out of the appropriations for printing of the department of instruction.

He shall select all textbooks, apparatus and educational supplies to be used in the public schools, subject to the approval of the board. If any report is to be presented to the board for the introduction of a new textbook or publication or any revised or amended edition of one already in use, such report, with the reasons for the action proposed, shall be exhibited by the superintendent to the committee on instruction prior to the submission of such report to the board. Such report shall also be accompanied by a copy of the book or publication.

Whenever, in his opinion, it is advisable to build a new school, or make material additions or alterations in an old school, he shall report to the board in connection with each recommendation the facts upon which he bases his opinion as to the advisability of building such new school or making such additions or alterations. Such report, after being submitted to the board, before action thereon by the board, shall be referred to the committee on instruction and finance as a joint committee, for consideration and report to the board.

He, or one of his assistant superintendents, shall be present at the office of the board on every school day between the hours of four and five o'clock p.m., to attend to such office business as pertains to his department; provided, however, that he shall be present himself at the above mentioned time on three days of each week.

There shall be six assistant superintendents of instruction, appointed by the board of education on the nomination of the superintendent of instruction, whose term of office shall be for two years commencing on the first day of September in each even-numbered year. An assistant superintendent elected to fill a vacancy caused by death, resignation, or otherwise, shall hold his office for the unexpired term.

The principal of the Harris Teachers' College shall have a rank and salary equivalent to that of assistant superintendent of instruction, and, in addition to his duties as principal of the Harris Teachers' College during its regular term, shall have charge of its extension terms, and shall also have general supervision and administrative direction of the Summer Teachers' College.

PERSONAL NEWS OF SUPERINTENDENTS

—Supt. W. E. Harris of Decatur, Ill., has been reelected for a three-year term.

—Mr. F. P. Gladden, assistant state superintendent of public instruction of Indiana, has resigned.

—Mr. H. R. Goold has been elected superintendent of schools at Eugene, Oreg., beginning with July 1.

—Supt. F. J. Moore of New Hampton, Iowa, has been reelected for a three-year term.

—Supt. J. M. Logan of Eagle Grove, Iowa, has been reelected for another year.

—Supt. J. E. Smith of Webster City, Iowa, has been reelected for a fourth consecutive term.

—Supt. F. L. Mahannah of Cedar Falls, Iowa, has been reelected for a two-year term, with a substantial increase in salary. Supt. Mahannah has completed ten years of service in Cedar Falls.

—Supt. C. H. Moore of Clarksville, Tenn., has been reelected for a term of three years, beginning with July 1.

—Supt. Carl A. Pfeiffer of Iron River, Mich., has been reelected for another year.

—Supt. G. D. Eaton of Clarion, Iowa, has been reelected for another year.

—Supt. H. N. Kluckhohn of West Union, Iowa, has been reelected for another year.

—Supt. Harvey H. Lowery of Fordson, Mich., has been reelected for another year.

—Supt. F. W. Frostic of Wyandotte, Mich., has been reelected for another year.

—Supt. E. S. Jones of Monticello, Ill., has been reelected for another year.

—Supt. R. T. Allen of Cleveland, Tenn., has been reelected for another term of three years.

—Supt. B. H. VandenBelt of Marshall, Mich., has been reelected for a three-year term, with a substantial increase in salary for each of the three years.

—Supt. W. S. Young of Springfield, Tenn., has been reelected for a fifth consecutive term.

—Prof. W. F. Hall of the Arkansas Teachers' College, has been appointed as state inspector of rural schools. Mr. Hall is a graduate of the University of Arkansas, the University of Chicago, Peabody College, and Teachers' College of Columbia University, and was for the last two years in charge of the department of elementary education at the state teachers' college.

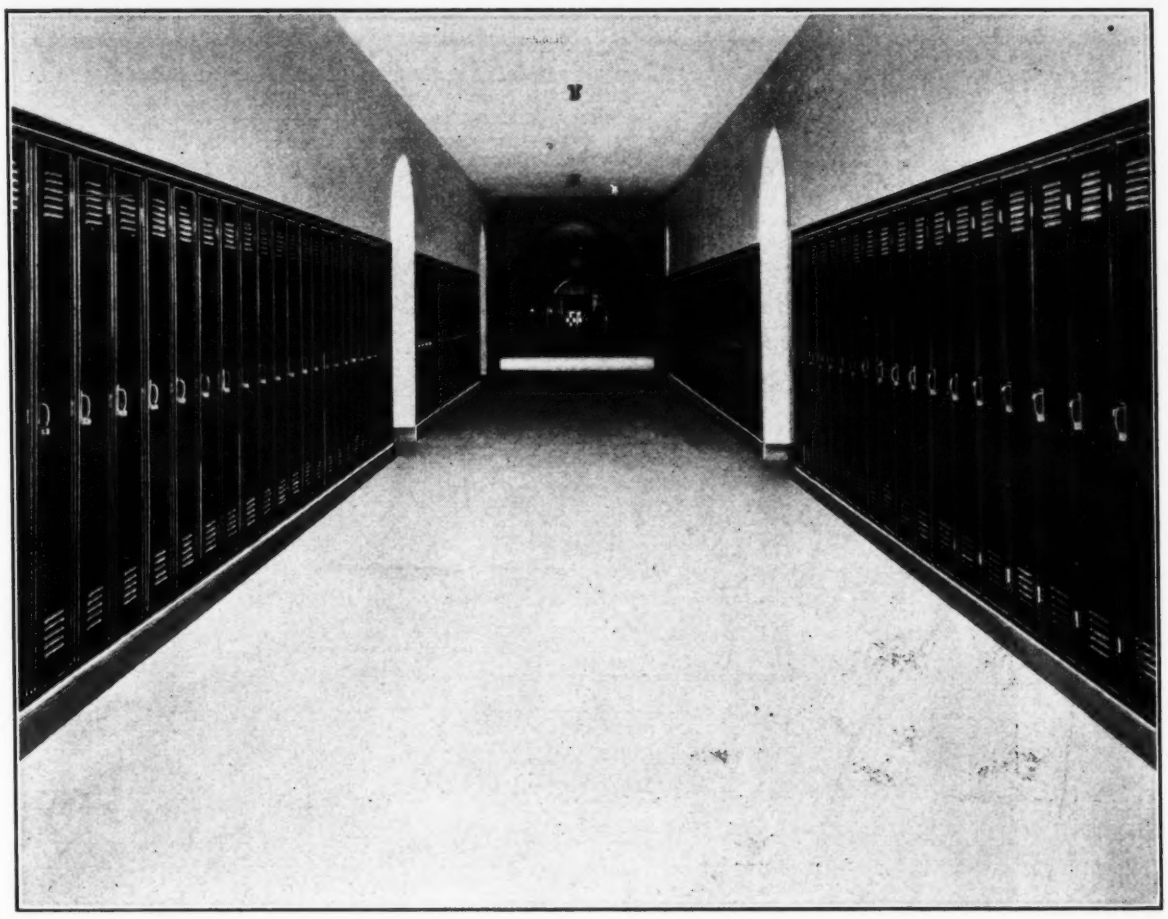
—Mr. F. L. Bacon of Newton, Mass., has been appointed principal of the J. Sterling Morton High School, Cicero, Ill., succeeding Mr. Church.

—Mr. M. C. James, deputy superintendent of schools at Berkeley, Calif., has been appointed acting superintendent, to succeed Mr. H. B. Wilson who resigned.

(Concluded on Page 93)

IN A PITTSBURGH HIGH SCHOOL

The saving of space and neat appearance of the recessed type of installation is gaining nation-wide preference.



BERLOY

Lockers — designed and engineered exclusively for the *modern* school!

There is no compromise with American youth—no avoiding the rigorous treatment and the exacting punishment they give to school equipment. It takes lockers of unquestioned structural stamina to hold their own.

The Berloy line—wide in variety and liberal in numbers of designs—is built under rigid engineering requirements to meet the abuses that must fall to their lot. They are lockers designed to meet school service — and built to meet every requirement of the designer.

Regardless of the nature of the installation — or need for special equipment — it can be had in a Berloy locker. It is one of the oldest and largest locker lines. Its age and size have given impetus to its qualities.

Are you facing a locker installation? Get in touch with us. A postal card will bring full information — and locker room lay-out service will be provided without cost. Write us today if a locker problem is on your hands.

If you face a locker problem —*write Berloy!*

Berloy maintains a service department to provide you with any necessary aid in locker specifications or in locker room planning.

Years of experience are available to you through this department. Particularly if locker problems are new to you will this service be of value.

There is no charge. Feel free to write us.

THE BERGER MANUFACTURING COMPANY

CANTON, OHIO

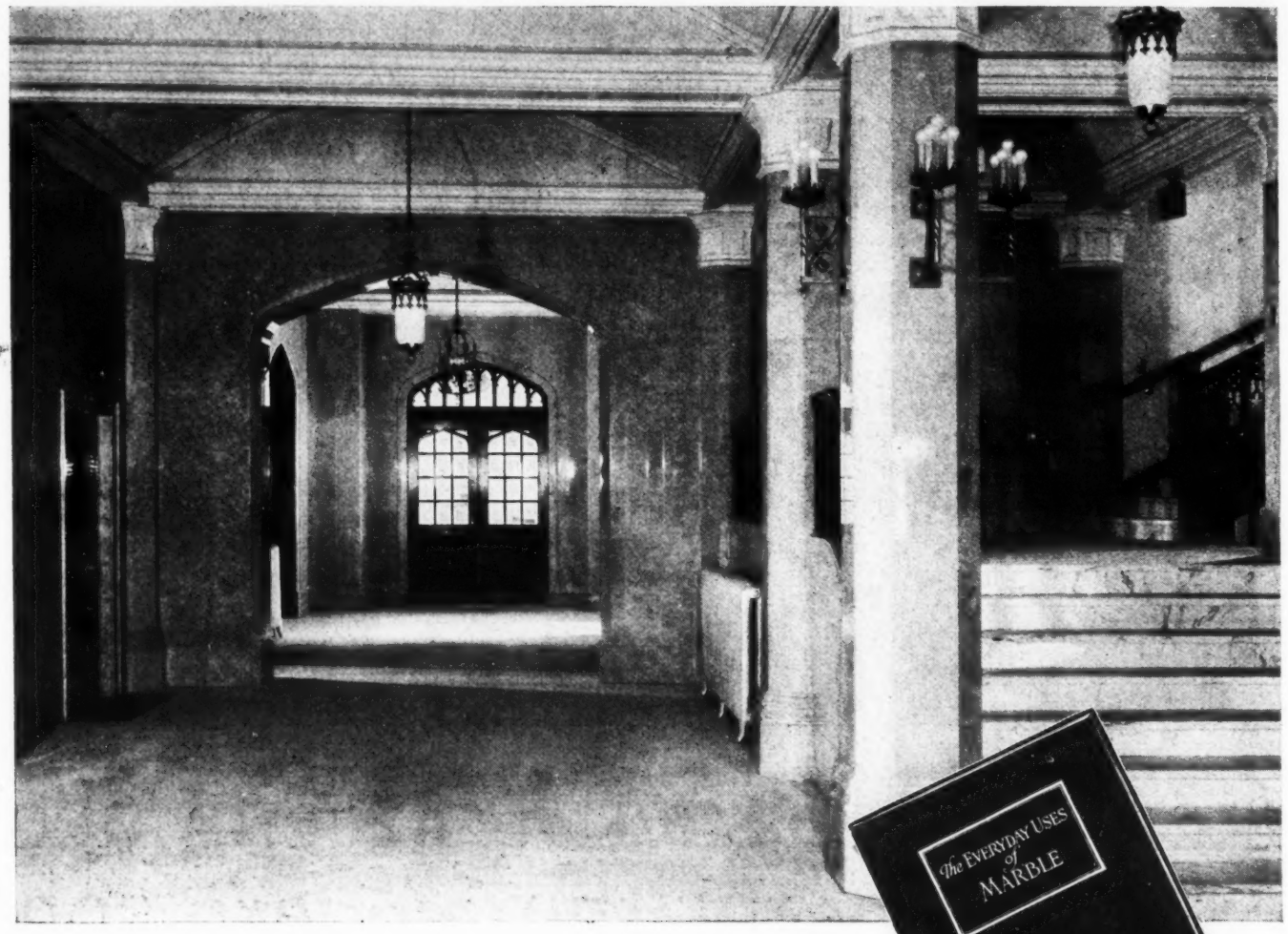
Branches At

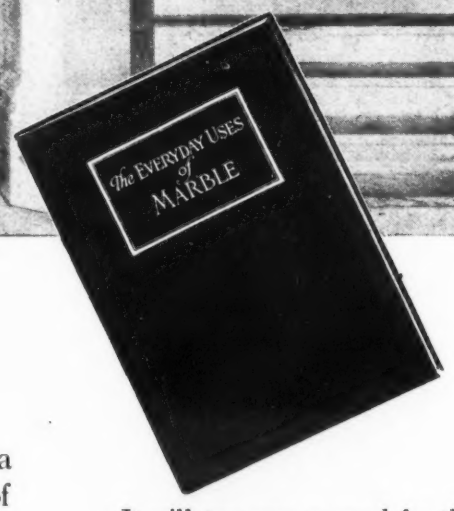
Albany	Columbus	Indianapolis	Milwaukee	Philadelphia	San Antonio
Atlanta	Dallas	Jacksonville	Minneapolis	Pittsburgh	San Francisco
Boston	Detroit	Kansas City	Montreal	Roanoke	St. Louis
Chicago	Houston	Long Island City	Newark, N. J.	Rochester	Seattle
Cincinnati		Los Angeles	New York		Toronto

EXPORT DEPARTMENT: 514 W. 25th St., NEW YORK CITY.

STEEL BERLOY LOCKERS

THE BERGER MANUFACTURING CO.





Correcting an Error

FOR ages, marble has appealed to the public as a semi-precious stone—a material suggestive of wealth, luxury and culture. To suggest, then, that you consider marble as an interior finish on the basis of its *ultimate economy*, might appear a bit unusual.

And yet, all about us are forceful examples of marble treatments that were installed principally because of this very fact.

It will pay you to send for the handsomely illustrated booklet, "The Everyday Uses of Marble." It gives many facts about marble treatments in various types of buildings, including commercial, store and residental structures. A copy is free for the asking—write to Department 10-E.

Banks, office buildings, theaters, stores and private dwellings! All of these are profiting in appearance and low upkeep costs by the extensive use of marble—for flooring, wainscoting, stairways and lavatory work. One has only to look about to be convinced that the beauty and durability of marble more than justify its claim to *ultimate* economy.

There is No Substitute for Marble

NATIONAL ASSOCIATION *of* MARBLE DEALERS

ROCKEFELLER BUILDING - CLEVELAND - OHIO



Air that Circulates Without Draft

KEEPS CHILDREN HEALTHY

WHILE studying indoors, young folks need abundant fresh air. Williams Reversible Windows allow the ***outside*** air to circulate ***inside*** the room without draft.
On cold days, either sash may be tilted to any desired angle, deflecting incoming air upward. On warm days, or for open air classrooms, both windows may be tilted to a horizontal position, thus taking in fresh air from outside through the entire window opening.

Easy to Clean

For cleaning, Williams equipped windows may be completely reversed and both sides of the glass washed from inside the room.

We shall be glad to refer architects or schoolboard members to any of the communities that have standardized on Williams equipment in their school buildings.

THE WILLIAMS PIVOT SASH COMPANY
East 37th St. at Perkins Avenue, Cleveland, Ohio

WILLIAMS REVERSIBLE WINDOW EQUIPMENT

(Concluded from Page 90)

—Supt. W. M. Davidson of Pittsburgh, Pa., has been reelected for a six-year term, at a salary of $15,000 a year. Mr. Davidson has been superintendent at Pittsburgh for the last ten years.

—Supt. P. S. Wilson of Medford, Minn., has been reelected for a fifth consecutive term.

—Supt. M. O. Kokensgart of Kenyon, Minn., has been reelected for a sixth term.

—Supt. H. A. Falk of Sauk Center, Minn., has been reelected for a term of three years.

—Mr. Ballard D. Remy has been elected superintendent of schools at Longmeadow, Mass., to succeed F. A. Wheeler. Mr. Remy has been principal of the Forest Park Junior High School at Springfield, Mass., for the last twelve years, and previous to that had held a similar position at Decatur, Ill.

—Elizabeth Ireland, superintendent of schools at Havre, Mont., has announced her candidacy for the office of state superintendent of public instruction.

—Mr. K. R. Curtis of Kinston, N. C., has been elected superintendent of the Wilson county and city schools, to succeed the late Charles L. Coon.

—Supt. M. E. Pearson and Asst. Supt. F. L. Schlagle of Kansas City, Kans., have been reelected for a term of two years.

—Supt. Thomas F. Davis of Hazel Park, Mich., has returned to his office after his threatened dismissal at the hands of the school board. The board members decided to drop the matter.

—Supt. L. McCartney of Hannibal, Mo., has been reelected for his twelfth consecutive term.

—Prof. Fletcher Harper Swift of the University of California, Berkeley, will conduct courses in the summer session of the Harvard Graduate School of Education. At the close of the session, Prof. Swift will go to Europe, where he plans to spend his sabbatical year studying the systems of school support in France, Germany, and England.

—J. W. Sexton, superintendent of the Lansing schools, was chosen president of the Michigan Education Association. Other officers chosen included: Vice-president, Warren E. Bow, dean of Detroit Teachers' College; executive committee, H. S. Doolittle, superintendent of schools of Negaunee, and J. W. Kelder, superintendent of schools of Big Rapids.

—Mr. L. A. Lavine of Montgomery, Minn., was elected superintendent of schools at Sleepy Eye.

—Mr. J. B. Heffelfinger of Newton, Kans., has been reelected for another year.

—Mr. H. C. Mason has been elected superintendent of schools at Blissfield, Mich., to succeed W. E. Lantz.

THE SCHOOL BUS AND SAFETY

—A legislative measure seeking to promote protection for school busses has been worked out by L. E. Richards, district superintendent of schools at Tracy, Calif., which embodies the following:

1. That all school busses when carrying children to and from school shall have *the same protection as do street cars* in the city; i.e., when a school bus stops either to receive or deliver passengers at road intersection, crossroads, or along the roadside anywhere, it shall be unlawful for any motorist or vehicle to pass without coming to a dead stop before passing.

2. That since no particular safety zone can be designated on the ground, *the safety zone* for school busses shall be a space equal to the length of the bus and extending 25 feet from either side of the bus at right angles to said bus, this provision to apply only outside of incorporation limits of cities and towns.

3. School busses will have *the right of way* and may stop at any point on the highway without leaving the paved road.

4. *Privately owned automobiles* used for transporting children to and from school, and for which compensation is paid to the owner, must bear the same sign "School Bus" and given same protection as a regular school bus.

THE ORGANIZATION OF THE ATTENDANCE DEPARTMENT AT DETROIT, MICHIGAN

The establishment of eight attendance centers at Detroit, Michigan, this year has brought about an increase in the number of school reports investigated by the attendance department. The change has made it possible for practically the same group of attendance officers to do twice as much work in the same length of time.

Under the new system, attendance officers have been able to complete 104,641 reports in five months, as against 88,341 reports in ten months during 1926-27. The nonreturns, that group of pupils who fail to return at the opening of school in September, were checked this year in less time than in any previous year.

Attendance Department Organization

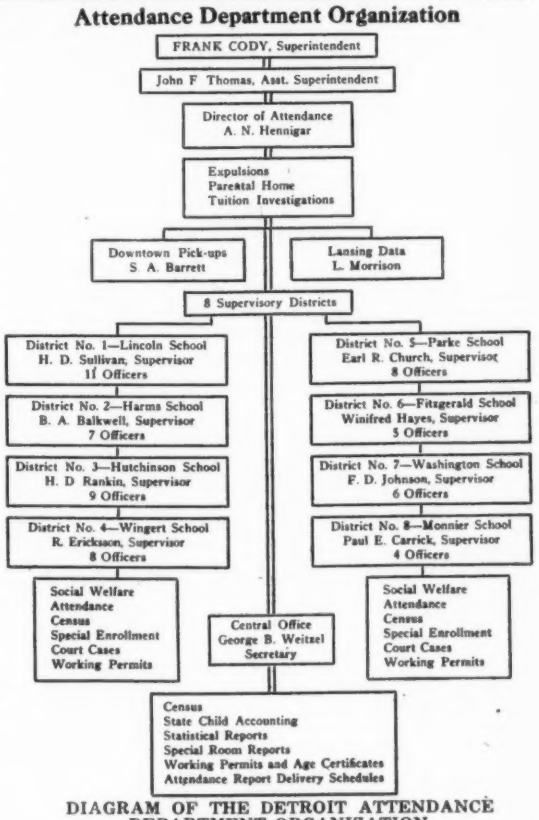


DIAGRAM OF THE DETROIT ATTENDANCE DEPARTMENT ORGANIZATION.

The addition of the new centers has made it possible for 5,773 families to be cared for during the first five months in granting work permits and adjusting trouble cases in the schools. Last year the parents of these pupils were obliged to visit the central office in order to get an adjustment of their problems.

The accompanying diagram taken from the *Detroit School Bulletin*, shows the organization of the attendance department for the most effective work.

—The school authorities of Milwaukee report that during the month of Feburary not a single child was killed through street-traffic accidents.

15 Master Models
53 Distributors

The finish in quality of American School seats has for years had a half century start with the nation-wide recognition of school boards. From intelligent appreciation of quality came demand. And from demand arose a great organization that has made a quality product quickly obtainable the country over. With 53 distributors—located to insure 48-hour delivery of your order—from a stock of 15 master models with almost 200 variations in style, size and design to select from—it is not unusual that the American organization should be accorded supremacy in this service testing field.

"The Factory is in Michigan
But the Service is Local to you"



No. 135—Adjustable Universal with High School Top
"Steel Desks Are Best!"



Roosevelt High School, Oakland, Calif.
C. W. Dickey, Supervising Architect



Claussen Junior High School, Oklahoma City, Okla.
Layton, Hicks & Forsyth, Architects



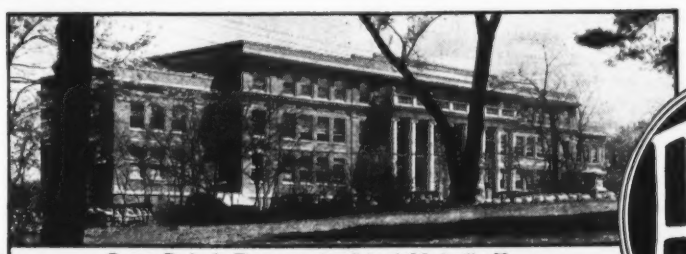
Liberty High School, Bethlehem, Penn.
V. E. Ritter, Architect



Manitowoc High School, Manitowoc, Wis.
Perkins, Fellows & Hamilton, Architects



FREE



George Peabody Demonstration School, Nashville, Tenn.
McKim, Meade and White, Architects

AS



No. 104—Steel
Adjustable Pedestal
Desk and Chair
"Steel Desks Are Best!"



No. 174—Adjustable
Universal Tablet
Arm Chair
"Steel Desks Are Best!"



Popular
High School Models

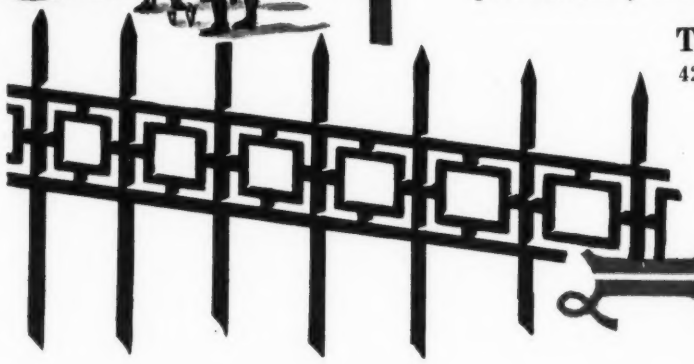
American Seating Company

Your School Should be Surrounded by such a Stewart FENCE



As an institution you are proud of, it deserves a proper setting—which good fence alone can give it. As a valuable piece of property, it claims protection—which good fence alone can afford. As a center of care-free youthful activities, precautionary measures are needed to safe-guard the young participants—and here again good fence alone will serve. There is no better fence made, than Stewart Fence. There is no greater range of choice or preference offered, than in the Stewart Fence line. Let us place the Catalog in your hands.

The Stewart Iron Works Company, Inc.
420 Stewart Block Cincinnati, Ohio
Representatives in all principal cities.



IRON & CHAIN LINK FENCES

SCHOOL ADMINISTRATION NOTES

THE SCHOOL-CENSUS SYSTEM IN MICHIGAN

The school-census system of Michigan which has been materially changed under the public laws of 1925 is now practically the Detroit system, with some modifications to adapt it to general use.

Under authority granted to the state superintendent of public instruction, a census plan has been evolved which includes the following essential features:

1. The time of taking the census has been changed from May 12-31 to March 12-31, inclusive, and two months are allowed for checking and writing of cards from each school district.

2. Each school district has adopted state forms for reporting to the state transfers between states, school districts within the state, and between public and nonpublic schools. For each new family coming to reside in a district there must be sent to the state a family card and an individual card for each child of census age.

The issue of work permits and statistical reports now have a close relationship to the census, due largely to the fact that a continuous school census is kept throughout the year. The distribution of work permits has been assigned to the census department which now has in its charge the compilation of child statistics.

Among the advantages which have been attributed to the use of the new child-accounting system are:

1. It provides for uniformity of pupil records.

2. It provides a cumulative record which may be kept available with a complete history of every child from time of entrance to graduation.

3. It provides for a uniform transfer system for the state.

4. It relieves small school districts of the work of taking an annual census. In such districts the census may be taken once in ten years.

5. It provides for uniformity of scholarship rating. Each school system within the state now has a point-point letter-rating system.

6. It provides for a more accurate distribution of state primary money through the use of the daily accounting plan.

THE LENGTH OF THE SCHOOL TERM IN NORTH CAROLINA

The state education department of North Carolina has issued an interesting report showing that nearly 60 per cent of the 824,151 pupils enrolled in the elementary and secondary schools of the state have had an opportunity of attending for a minimum term of eight months, during the school year 1926-27. Statistics for the year show the distribution of pupils according to the length of the term of school attended. To be exact, 490,655 school children during 1926-27 attended schools having a term of 160 days or more.

Divided according to school location, 286,559 pupils of this group enrolled in long-term schools are rural school children, and 204,096 are city children. The rural children represent only 46.6 per cent of the total rural enrollment, whereas the 204,096 children in city schools is 97.8 per cent of the total city enrollment. In 1926-27 there were 150,000 more children in long-term schools than were in this type of school in 1922-23. Of this number, 113,000 are rural boys and girls, who have been given an opportunity of education on a broader plane.

The most interesting part of the report is that pertaining to the number of children enrolled in short-term schools. The report shows that there were 333,496 pupils attending schools having less than an eight-months' term in 1926-27. Of this number, 158,393 are in white schools and 175,103 in colored schools. All except 4,567 city colored children were enrolled in rural schools.

Each year since 1922-23 there has been a decrease in the number of pupils enrolled in schools having a term of less than 160 days. In 1922-23, there were 247,984 white children and 181,384 colored children, a total of 429,368 children, who did not have the opportunity of attending a school for an eight-months' term. In 1926-27, four years later, the number had decreased to 333,496. Nearly all these children live in the rural districts. It appears, therefore, that any attempt in the future toward lengthening the school term should be in the direction of the rural child.

A study of the enrollment according to length of term attended by each of the five groups, shows that the largest percentage of white children are enrolled in schools having a term of 160 days. Yet, there are also a large number of white children, mostly city, who are enrolled in nine-months' term schools. In fact, 81.2 per cent of the white children are attending schools having a term of nine months. Most of the colored pupils are enrolled in six-months' schools. Here, too, the largest percentage of children in city schools is in the 18-day-term schools.

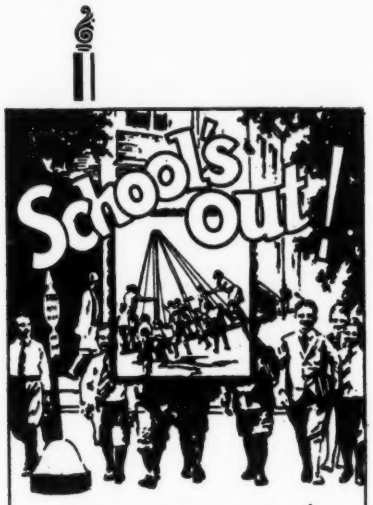
The statistics on the average length of term for all schools of the state show unmistakable progress. A significant feature of the table is the fact that in all city schools the average school term from 1900-01 to 1926-27 has been 160 days or more, whereas the average rural term has not yet reached that length.

The average term of rural white schools in now 141.4 days, whereas in 1900-01 it was 76 days only. The average term of rural colored schools is 124.8 days, and in 1900-01 it was 69 days. It is noted that the length of the term increases as the size of the school based on the number of teachers increases. In one-term schools the average term is 125.6 days; in schools having eleven or more teachers, it is 165.3 days. The average in all rural elementary white schools is 145.6 days.

In the report North Carolina is given a rank of eleventh among the Southern states in the average length of the school term. Maryland has an average length of term of 186 days, and Texas only 134.7 days. North Carolina's average of 144.8 days is much nearer that of Texas. Virginia and Tennessee, the adjoining states, are much above this state. South Carolina and Georgia are not far behind when it comes to the average length of the school term.

A total of thirteen counties in the state are offering a minimum term of eight months for all white children. It appears there is a distinct tendency toward a longer term in the rural-school districts of the state.

(Continued on Page 98)



JUST a matter of a few weeks before hundreds of little folks will have nothing to do but play. But there is still time to equip a playground or add a new piece to the old one, and have it ready for vacation days—recreation days. Send today for



The NEW

MEDART

Playground Equipment Catalog

The new 1928 Medart Catalog is chuck full of suggestions for equipping a playground with up-to-date Medart Playground Apparatus—built to give the utmost in safety and durability. Every piece illustrated, priced and described.

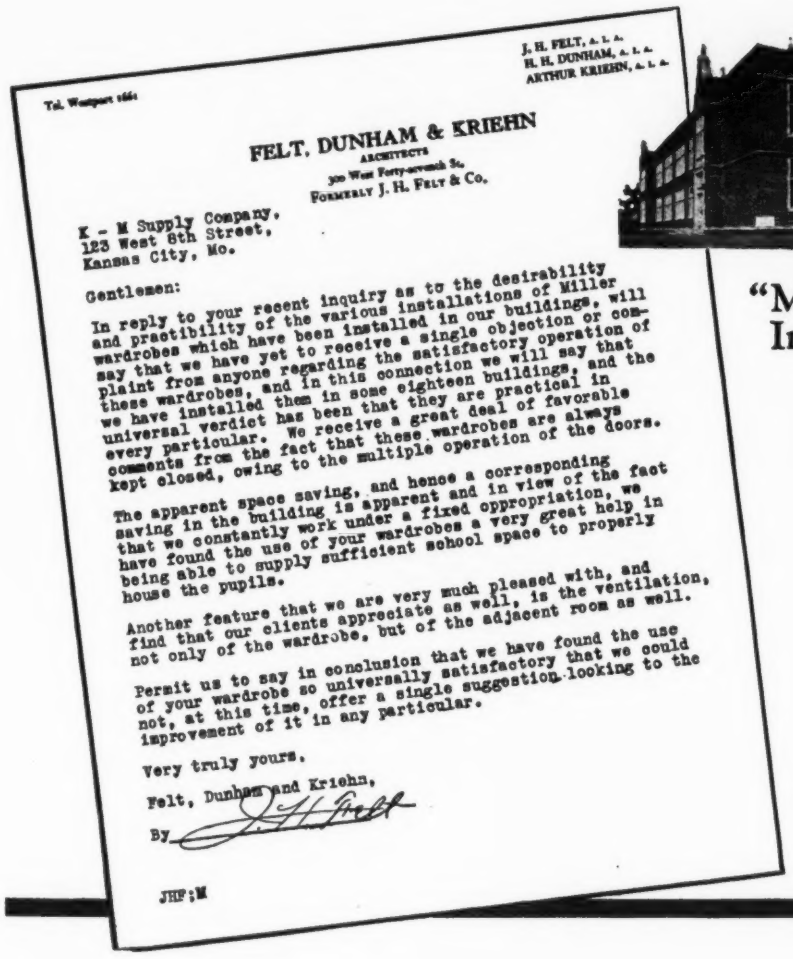
New Safety
New Durability

WE have been a part of the playground movement since its beginning. Our engineers are continually improving our apparatus that it may give the utmost in safety and durability. Our new catalog shows the full range of playground equipment, each piece of equipment having new features of durability and safety.

FRED MEDART MANUFACTURING CO.

3530 DeKALB STREET, - - SAINT LOUIS, MO.

For 55 years makers of Gymnasium Apparatus and Playground Equipment



Tel. Westport 1661

J. H. FELT, A. I. A.
H. H. DUNHAM, A. I. A.
ARTHUR KRIEHN, A. I. A.

FELT, DUNHAM & KRIEHN
ARCHITECTS
300 West Forty-seventh St.
FORMERLY J. H. FELT & CO.

K - M Supply Company,
123 West 8th Street,
Kansas City, Mo.

Gentlemen:

In reply to your recent inquiry as to the desirability and practibility of the various installations of Miller wardrobes which have been installed in our buildings, will say that we have yet to receive a single objection or complaint from anyone regarding the satisfactory operation of these wardrobes, and in this connection we will say that we have installed them in some eighteen buildings, and the universal verdict has been that they are practical in every particular. We receive a great deal of favorable comments from the fact that these wardrobes are always kept closed, owing to the multiple operation of the doors.

The apparent space saving, and hence a corresponding saving in the building is apparent and in view of the fact that we constantly work under a fixed oppropriation, we have found the use of your wardrobes a very great help in being able to supply sufficient school space to properly house the pupils.

Another feature that we are very much pleased with, and find that our clients appreciate as well, is the ventilation, not only of the wardrobe, but of the adjacent room as well.

Permit us to say in conclusion that we have found the use of your wardrobe so universally satisfactory that we could not, at this time, offer a single suggestion looking to the improvement of it in any particular.

Very truly yours,

Felt, Dunham and Kriehn,

By J. H. Felt

JHF:M

CITY SCHOOL
WARRENSBURG, MO.

"Miller Wardrobes are Practical In Every Particular" *Says Mr. Felt*

AFTER installing Miller School Wardrobes in eighteen school buildings, Mr. J. H. Felt, architect, reports that not a single objection or complaint has ever been received regarding them—but that, on the contrary, the wardrobes are praised as being practical in every particular.

Miller School Wardrobes enable school boards to build "more building for less money" than when cloak rooms are used. They reduce heating expense; permit perfect ventilation of class rooms and corridors; insure security from petty pilfering; and afford maximum discipline in assembling and dismissing classes.

Write for a copy of our Catalog W-6.

K-M SUPPLY CO.

Manufacturers of Miller School Wardrobes
123 West Eighth Street
KANSAS CITY, MISSOURI

(Continued from Page 96)

In the city-school systems, it is reported that all children have the opportunity to attend schools having a term of eight months or more. A large majority of the city children have the advantage of a nine-months' school.

RECOMMEND REORGANIZATION OF SUPERINTENDENT'S OFFICE

—A reorganization of the office of superintendent of schools of New York City has been urged by the survey committee in order to relieve him of the routine administrative duties and permit him to concentrate on general policies and to assume responsibility for the course of the school system.

The report on "The Superintendent's Responsibility for Professional Leadership and Executive Direction," received the indorsement of the fourteen experts from all over the country, who insisted upon a reform of the superintendent's office as the most necessary change in the school system.

According to the survey committee interferences in the work of the superintendent are caused by routine matter, reports, and correspondence which the superintendent is regularly called upon to handle himself. At present the superintendent receives, studies, and acts upon numerous reports which come to him directly from various division heads, board members, school patrons, teachers' agencies, and individual teachers, which can be taken care of properly and in less time by trusted aids of the executive, and which cannot possibly be attended to by him without deflecting his attention from problems of immense consequence which no one else can deal with satisfactorily.

The committee suggests a wide delegation of routine duties and a gathering in of the strings of central responsibility in order to make the superintendent accountable for the broad policies and executive acts of the school system. More help is recommended for the superintendent's office, as well as holding division heads more strictly accountable for efficient use of their present powers.

In addition, the committee asks that associate superintendents be assigned to system-wide problems without being also assigned to geographical districts. The associate superintendent should be assigned to continuous educational audit, to seeing where the organization is not getting done what is expected of it.

RIGHT OF PUPILS TO CONTINUE IN SCHOOL

The New Jersey state education department, in discussing the right of pupils to continue in school, has ruled that a pupil may legally claim the provision of public-school facilities by the school district in which he resides, until he either completes the course of study or reaches the age of 20 years.

The department refers to the school law which provides that the public schools shall be free to all persons over 5 and under 20 years of age, and to such persons over the age of 20 years as the board of education may deem it wise to offer instruction, and who are residents of the district.

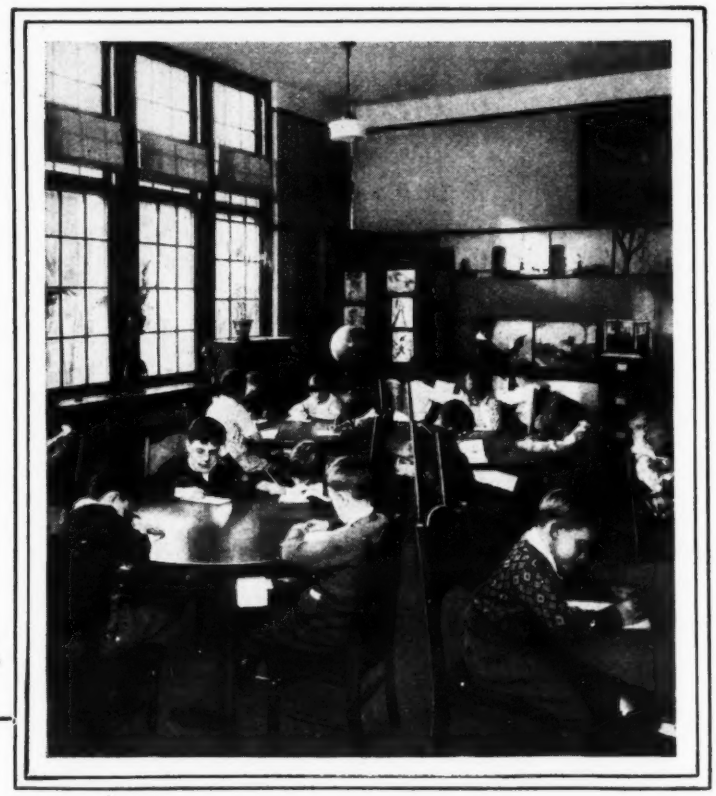
In cases where the board of education desires to act upon the theory that a pupil who has pursued a course for a given number of years and fails of promotion or graduation may be refused further free-school facilities, it is brought out that a contention of this kind cannot be sustained under the state law. Either one or two things, namely, the completion of the full elementary and high-school course of study, or his reaching the age of 20 years, releases the board from further obligation; but, if the pupil has neither completed the course of study nor reached the age of 20, he is still entitled to the continuance of school facilities.

An exception is made in the case of an elementary or high-school student whose refusal to apply himself to the work is such as to constitute willful disobedience or open defiance of authority. In such case, suspension or expulsion would be justified, but such action would be taken on the ground of disobedience or defiance of authority, and not because of mere inability to secure promotion or graduation after a given number of years.



A BOY SCOUT SCHOOL TRAFFIC OFFICER IN NEW YORK CITY.
(Wide World Photo.)

new
Energy . .
new
Health . .
Stronger Bodies . .
through
Windows of VITA* GLASS



Vitaglazed panes increase children's health . . . bring into the schoolroom the health rays of the sun year after year . . . decrease absence due to illness . . .

DAY in . . . day out . . . summer and winter, the windows of your school can bring health to pupils . . .

Once installed, they need never be touched. They do their amazing work silently, efficiently. These panes give children new vitality . . . new energy . . . better health . . . more sturdy bodies, sparkling eyes and glowing skin . . .

All these things are possible in *your* school with Vita Glass. Investigate this marvelous health factor.

What caused these remarkable results

An eminent English scientist made the amazing discovery of this window glass that would transmit indoors the vital health rays of sunlight—the ultra-violet rays shut out *entirely* by ordinary glass.

In Vita Glass he gave to schools a means of bringing to pupils these rays. The rays which build stronger, healthier bodies, stimulate physical and mental activity, making better and happier children.

Vita Glass is a highly efficient and inexpensive glass that admits, in volume, the vital ultra-violet rays. It also admits *more light,* and transmits all colors in their true brilliance.

The Smethwick School Test

In Smethwick, England, two schoolrooms —one Vitaglazed, the other with ordinary window glass—both filled with boys of the same age and physical character, were placed under observation. Weights and heights of boys in both rooms were taken. In ten months they were taken again. Here is the astonishing result!

Pupils in the Vitaglazed room gained an average of 6.11 pounds against 2.83 in the other class. The gain in height was 1.86 inches against 1.52. Absences due to illness were decreased over 40% in the Vitaglazed room.

Make this test in your school

Other schools are proving as conclusively the ability of Vita Glass to bring indoors to growing bodies nature's most effective tonic—sunlight.

With Vitaglazed windows school children need no longer suffer the devitalizing effects of being shut indoors for many hours a day, winter and summer, from the vital ultra-violet rays which exist in sunlight. Pupils are not cut off from the rays doctors and scientists say their bodies need so badly.

Vita Glass is clear window glass . . . no different in *appearance* from the glass you now use . . . as easy to install as are the ordinary panes. Its slightly higher cost is repaid a hundred fold by its health advantages.

Coupon brings more data

The whole story is too long to tell here. Mail the coupon today. It will bring you full information about Vita Glass. Take advantage of this opportunity to learn all about this health guardian that should be in your school. Address Vitaglass Corp., Dept. D. 5, 50 East 42nd Street, New York City.

Vitaglass Corporation, Dept. E-5
50 East 42nd Street, New York City.

Please send me more complete data on Vita Glass in actual use, with special reference to its benefits in schools.

Name.....

Address.....

City.....State.....

© V. C., 1928

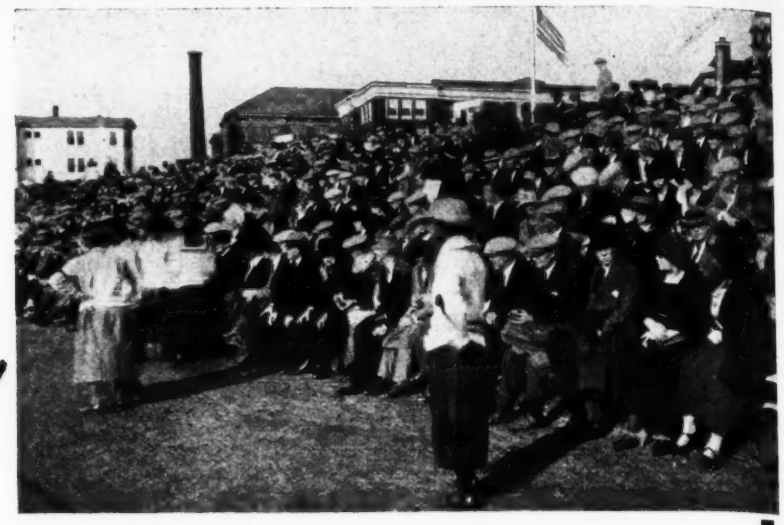
VITA* GLASS

Each pane is cut to size, and bears the trademark label

LAMBERT VITA GLASS

* TRADE MARK REG U S PAT OFF

Safe!



Write today for complete information and prices
Prompt delivery for Spring games

WAYNE IRON WORKS
Lincoln Highway and Pembroke Ave.
WAYNE, PA.

Representatives in Baltimore; Cambridge, Mass.; Indianapolis; New York.

Your students, their parents and your own dear ones will be SAFE on a

WAYNE STEEL SECTIONAL GRANDSTAND

It cannot collapse. Spectators cannot trip over the boards, as they join flush. Fire hazard is reduced to a minimum. Wayne Stands have received the sanction of Fire Underwriters.

Wayne *Stands* FOR SAFETY

THE SCHOOL MARKING SYSTEM

Mr. J. R. Overturf, writing recently in *School Progress*, Sacramento, Calif., discussed the school-marking system as a vital factor in schoolwork. He refers to the report card as one of the chief avenues for making the connection between the home and the school, and urges that it be accepted as a reasonable and satisfactory method of conveying certain information to the home. That which goes on the report card is the thing which deserves indictment, rather than the card as a medium.

The question as to whether the report card is a necessity may be dismissed on the ground of its long and satisfactory use as evidence of its continuance. The report card is the pupil's pay envelope and it nearly comes to that for the parent.

Discussing the frequency of issuing cards, Mr. Overturf holds there are some good reasons for issuing them at certain intervals. Probably the quarterly basis is the best basis for sending cards home. First, four cards per year would seem a reasonable basis for handling efficiently the scholastic standings of pupils. This is important because the matter of entering grades is one of the big clerical items for the teachers. The quarter's record, as against the six-weeks' or the four-weeks' record, reduces the clerical work from 33⅓ to 60 per cent. A system of sending a simple unsatisfactory report home at the end of three weeks for all pupils who are not doing satisfactory work, obviously reduces the clerical work for the teacher very appreciably. The unsatisfactory report should be noted by checking it out as well as back into the school, else its usefulness is of little value.

Mr. Overturf in discussing the type of report card, holds that the burden in not on the report card but upon the subject matter which it contains. The importance of the reliability of the information which the card carries to the home is tremendously important because it has to do with school success or failure of the pupil, his entrance into college, etc. The markings in the various subjects are the vital contents of the whole card.

Mr. Overturf believes that guesswork should be eliminated in the matter of school marks for the reason that marks are given so much weight in the matter of promotions, college entrance, etc. The teacher question comes into the whole matter of marks and teachers need to study carefully their reasons for giving marks in the various subjects. Personal likes or dislikes for the child should have nothing to do with the mark he should receive. The child's decorum has nothing to do with the marks he should receive, except as it has a bearing on the time which should be given to study.

In the judgment of Mr. Overturf, the whole field of administering school marks needs to be given careful study in any school system and needs to be simplified down to the lowest minimum. A three-point or a four-point scale is undoubtedly superior to a seven-point scale, and this scale should be of the symbol type, as it is impossible for teachers to find percentage grades with any degree of accuracy at all, except on the basis of multiples of five, and perhaps multiples of ten would be the better basis. It is the business of the schools, according to Mr. Overturf, to see to it that children are challenged with material comparable to their abilities, and when this is done, the matter of school marks will take care of itself.

ADMINISTRATION NOTES

—A conference of state superintendents and commissioners of education will be held at Washington, D. C., some time next fall, for the purpose of working out some of the problems relating to state educational offices and particularly those which relate to the Bureau of Education. In this connection, Supt. F. G. Blair of Illinois, Supt. J. C. Callahan of Wisconsin, and Supt. A. H. Kieth of Pennsylvania have been assigned to work with the U. S. Commissioner of Education in making arrangements for the proposed conference.

—Surprising figures about the growth of the high schools are revealed in a recent statement made by the United States Bureau of Education. The high schools now have an enrollment of nearly 4,000,000 pupils, or approximately 48.2 per cent of the entire population who might be expected to attend high school. The schools are holding a larger percentage of pupils through the course than formerly. During the school year 1925-26 the high schools graduated 434,539 pupils, the girls outnumbering the boys 244,485 to 190,054. "The reorganization of public high schools into junior and senior units and the coordination with junior colleges are now occupying the attention of secondary school interests to a marked degree. The organization and enrichment of curricular material and the construction of buildings suitable to the needs of reorganization are being pushed forward at a rapid rate. All this is done in a serious attempt to make the secondary school better fit the needs of the pupil and of the community as well," says the bulletin.

—Harrison, N. J. The school board has taken steps to oppose a bill before the legislature requiring pupils to complete the sixth grade before they may leave school to work. It is argued locally that the new law will be a hardship on needy families who would be deprived for another year of the earnings of a child.

—New York, N. Y. Forty-eight sittings, instead of forty, were fixed by the board of superintendents recently as a standard number of sittings in all classrooms of the seventh, eighth, and ninth grades, where conditions permit it.

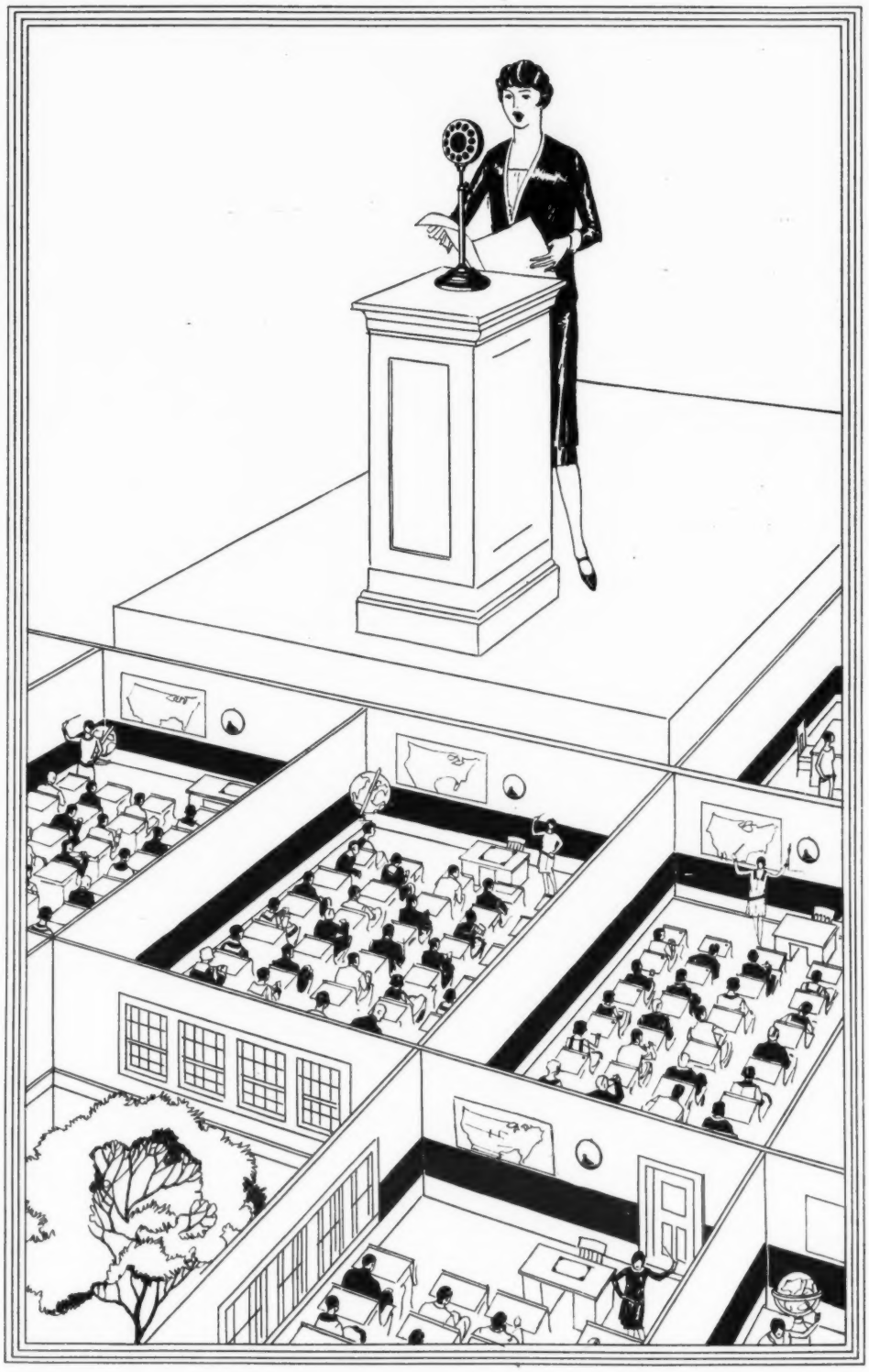
Associate Supt. W. A. Boylan, chairman of the committee on buildings, has been empowered to apply the new limit to classrooms in the upper grades of elementary schools and in junior high schools, where the pupil registration in these grades is sufficient to justify the additional sittings. The school authorities have been assured that the installation of additional sittings may be easily done without conflicting in any way with the fire laws.

—Uniform dress for high-school girls has been inaugurated in the Fairfax High School at Hollywood, Calif.

(Continued on Page 103)

AN EDUCATIONAL GUIDE POST

Our discovery of greatest worth is that the nature of the child should be our guide post. We are learning to despise artificiality, military discipline, forced obedience, and the acquiring of useless fact knowledge. We are learning to seek naturalness in all its manifestations, voluntary discipline, growth through interest and desire, and will take more rapid strides along the great highway of education. Educators are enthusiastic. A hopeful sign! The layman is showing interest. A more hopeful sign! And even the children show themselves capable of thinking effectively along these lines. What could be more encouraging than this?—Sarah H. Christie, Boston, Massachusetts.



AS IF ALL CLASSROOMS WERE ONE

SUPPOSE all the classroom walls could be removed at once and all classes gathered together as if in one big room .... Physically, this may be impossible but it is in effect just what can be done through the Western Electric Public Address System.

A loudspeaker in every room brings over the voice of the music teacher, the commands of the gymnasium instructor, the music of the school band or the morning address of the principal.

And how clearly! The reputation and experience of the maker are guarantee of that. Western Electric has been engaged for two generations in just such problems involving voice and sound transmission. For further information address Graybar Electric, distributor of Western Electric products. One of our 66 distributing houses is nearby.



GraybaR

Successor to Western Electric Supply Dept.



THE GRAYBAR TAG—SYMBOL OF DISTRIBUTION



Another convenience indispensable to the modern school—

The Inter-Phone

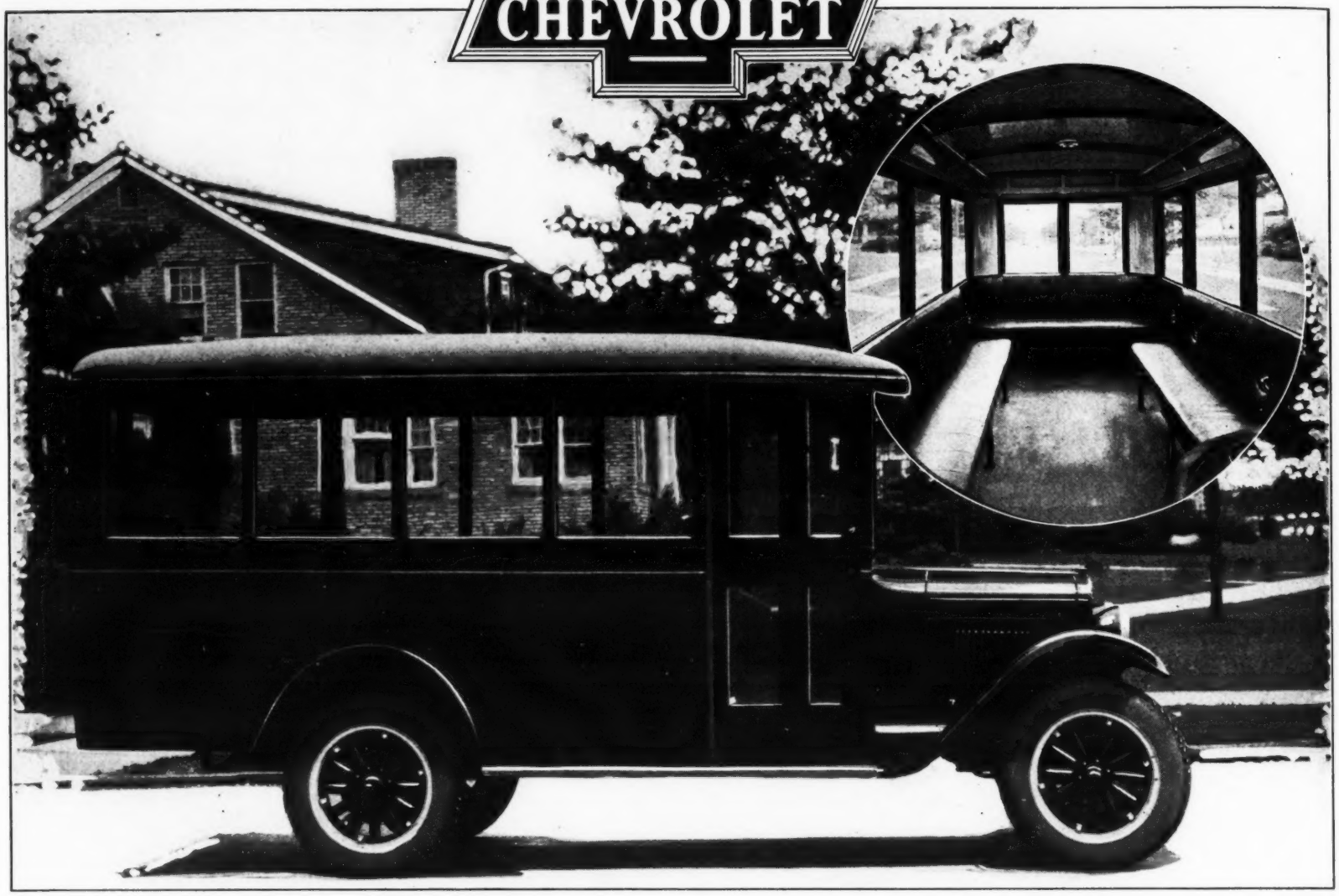
This instrument is proving its great value in speeding up inter-room communication.

OFFICES IN 66 PRINCIPAL CITIES :: EXECUTIVE OFFICES: GRAYBAR BUILDING, LEXINGTON AVE. AND 43RD ST., NEW YORK, N. Y.

for Economical Transportation

Utility Truck with Special School Bus Body

CHEVROLET



Get Delivery on a New Chevrolet Truck NOW!

If your requirements call for a speedy, dependable haulage unit—you can get prompt delivery on a Chevrolet Truck. The thirteen great Chevrolet factories are working at capacity; and your Chevrolet dealer can provide you with exactly the body-type to meet your individual requirements.

See him for a trial-load demonstration. Let him explain the advantages of Chevrolet's rugged construction and modern design. Let him show you why Chevrolet provides the world's lowest ton-mile cost in every line of business.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

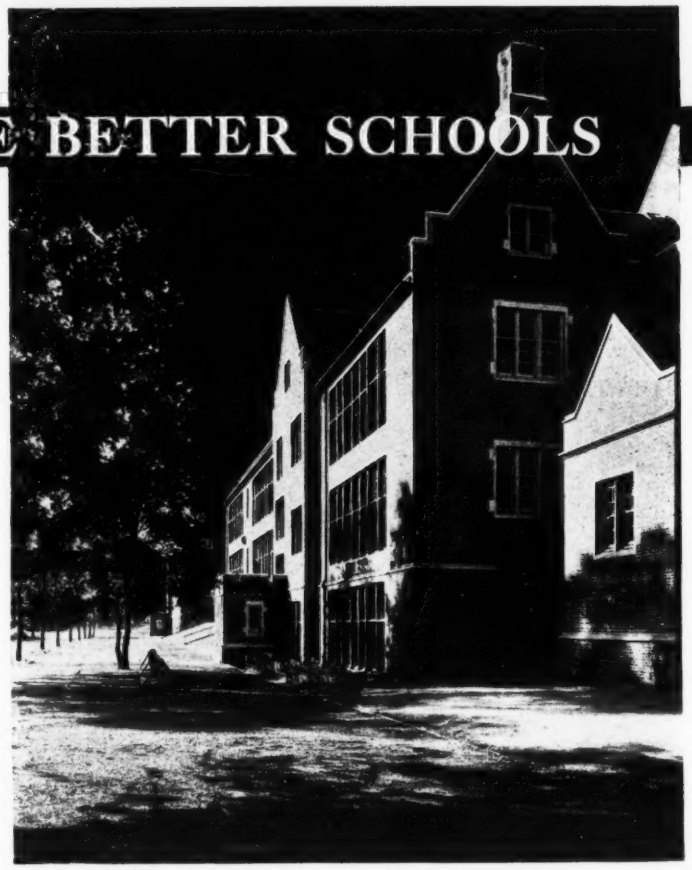
—at these
Low Prices

LIGHT DELIVERY
$375
Chassis only

UTILITY TRUCK
$475
Chassis only

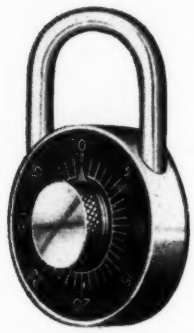
Prices f.o.b. Flint, Mich.

QUALITY AT LOW COST



At left
High Shool, Bronxville, New York

THE BETTER SCHOOLS ARE DUDLEY EQUIPPED



There are thousands of experienced school executives ready to advise you to use the Dudley Keyless Lock because it is the only satisfactory locking system for school lockers.

DUDLEY KEYLESS LOCKS

TEAR OFF HERE

Dudley Lock Corporation,
26 North Franklin Street, Dept. A 15

Without obligation on my part will you please send me details about Dudley Keyless Locks for school use.

Name .....

Address .....

City ..... State .....

(Continued from Page 100)

—Elimination of the spring vacation in the public schools has been urged by Mr. L. M. Price, realty operator and chairman of the ways and means committee of the Chicago Homes Economic Council, in a communication to President J. Lewis Coath of the Chicago board of education. Mr. Price points out that this holiday has become an anachronism as moving day is now spread over the year instead of being concentrated on May 1 and October 1. The school board has been asked to help the social and business life of the city by eliminating moving-week vacation.

—New Ulm, Minn. The parents' organization has approved a uniform dress for high-school girls. Beginning next September, all girls in the high school will wear dark blue serge uniforms.

—Wichita, Kans. The enforcement of the "loafer's" rule in the high school has placed eighteen students on the probation list. The rule which went into effect last September, is intended to eliminate students who do not wish to study and who are a general hindrance to the rest of the school.

The rule requires that each student must pass in at least two subjects. Students who do not pass in the required subjects are placed on probation for six weeks.

—Klamath Falls, Oreg. The departmental plan of instruction has been introduced in the Fremont and Mills grade schools. The change affects the sixth, seventh, and eighth grades of these schools.

—Eugene, Oreg. The remedial study plan has been introduced in the Roosevelt Junior High School, with the result that the number of failing pupils has been reduced from 140 to 40.

—El Monte, Calif. With the opening of the second semester, the high school has rigidly enforced the wearing of a regulation uniform. Under the rules, Wednesday is dress-up day, when girls may wear other costumes. On that date the uniforms may be cleaned and pressed ready for the next day.

—Dayton, Ohio. Recommendations for the elimination of free textbooks and supplies to children in local schools, excepting indigents, have been made by the classroom teachers' association. The elimination of free books has been proposed as a means of decreasing school costs. It is estimated there will be a deficit of about $87,000 after all economies have been put into execution.

—The state education department of Indiana has selected the 53 books to be used by the 125,000 children of the state during the next five years. Ten of the new books are higher in price, and three are lower. Of the 53 books selected, 17 are new, and the others are readoptions or revised editions of texts now in use. The books will cost the parents about $12,500,000 during the five-year period.

—A bill has been introduced in the New Jersey legislature calling for the regulation of high-school fraternities by local boards of education. Under a former law, secret societies are forbidden but it appears these organizations continue to flourish. Contempt and disobedience of the law are said to have exerted a harmful influence among the students.

—The teacher-preparing institutions, according to the United States Bureau of Education, have been increased in excess of the enrollment for the profession. The total amount expended by teachers' colleges and normal schools for additional land and buildings in 1924 was $8,814,613; in 1922 it was $5,962,885; in 1920, $3,818,220. Such expenditures in 1922 were 56 per cent greater than 1920, 48 per cent greater in 1924 than in 1922, and 131 per cent greater in 1924 than in 1920. The percentage of increase in expenditures for additional land and buildings during these years is greater than the percentage of increase in the number of students enrolled in the normal-school course. The enrollment in 1922 was 44 per cent greater than in 1920, 26 per cent greater in 1924 than in 1922, and 81 per cent greater in 1924 than in 1920.

—With a school population of 28,169 with an increase of 4,000 over last year, Flint, Mich., is now the third largest in the state, according to Supt. C. V. Courter. Owing to the rapid growth in population Mr. Courter recommends a comprehensive building program.

—When the school board of Goshen, Ind., decided to employ no married teachers, the *Indianapolis Star* made the following comment: "The problem is not primarily one of finding jobs for the greatest number of young women who have made the preparation prescribed by law, but of selecting the best teacher among all those who apply. Those best qualified ordinarily survive the competition of the business world, and there is no reason why the rule should be waived in the educational field. Where the qualifications of the married and unmarried teacher are equal the latter, ordinarily, should have the preference."

—The schools of Detroit, Mich., used motion pictures last year in 76 elementary schools, 9 intermediate, and 7 high schools. In all, 3,000 miles of films were employed. The department of visual education inspected 2,000,000 ft. of picture films in weeding out undesirable material.

—The school board of Peoria, Ill., dropped seven teachers and one principal from its schools because they live at Pekin, a neighboring town. Five of the members of the board were opposed to the action, but Pres. M. H. Whitlock reasoned that Peoria was in industrial distress and must protect itself. The majority voted the dismissals. J. A. Strawn, a member, in disapproving, said: "Kid-stuff and provincialism are certainly indicated in the decision to oust the teachers from Pekin. Moreover, the friends of these teachers will make this decision cost Peoria far more than it has gained. The bullheaded publicity-seeking methods employed by those whose efforts ousted these teachers, will reflect directly upon the Peoria school system."

—The parent-teacher association of California has asked the cooperation of school superintendents and principals in promoting simplicity of dress in classrooms, in school activities, and in graduation exercises. It is the opinion of the association that dress and requirements should be within the financial reach of all.

—Alteration of the laws governing the Michigan state school system have been urged by the Michigan Education Association, which held its annual meeting at Detroit, in April. Included among the recommendations are some which will be included in the Association's legislative program. These are:

Appointment instead of election of the state superintendent of public instruction.

Examination of teachers under civil-service supervision, allowing a 10-year tenure of office instead of the yearly contract plan.

Increase of teachers' salaries.

Reform of the rural-school system with consolidation of one-teacher schools and raising of training requirements for rural-school teachers.

Reorganization of the present system of high-school basketball tournaments, with rezoning of the state into three championship districts, and a single state championship tournament.

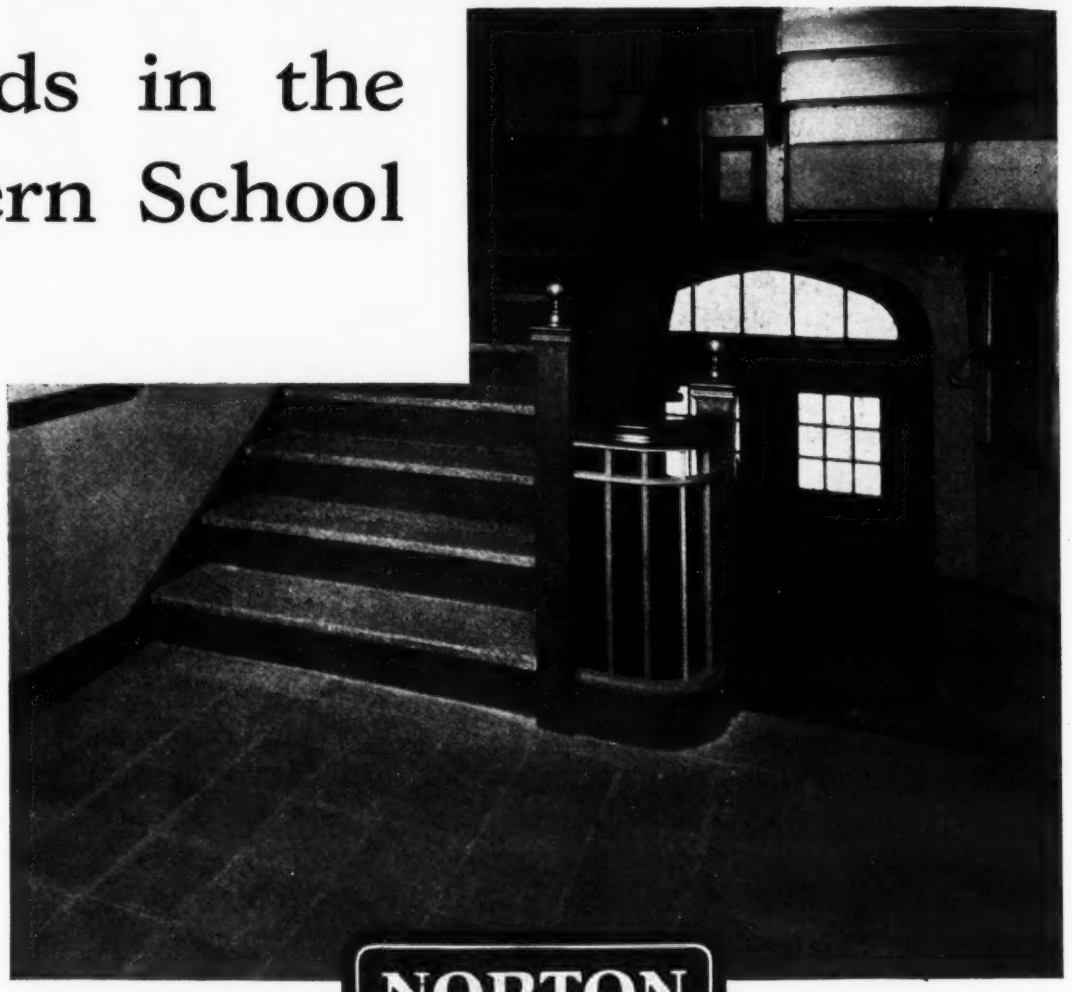
Modern Treads in the Modern School

Just as the one-room school has been replaced by large structures modern in every detail, so old time floor and stair materials have given way to modern products—to Norton Floors—a twentieth century development that combines both safety and durability.

The various types of Norton Floors make it possible to meet the requirements of practically any type of school stairway construction. The basic material in all Norton Floors is the abrasive known throughout the industrial world by the trade-mark "Alundum." It is this abrasive that makes them permanently non-slip and extremely wear-resisting.

NORTON COMPANY, Worcester, Mass.
New York Chicago Detroit Philadelphia
Pittsburgh Hamilton, Ont.

T-191B



Sanford Riley Dormitory,
Worcester Polytechnic Institute,
Worcester

NORTON FLOORS
Alundum Tiles, Treads & Aggregates

Appleton & Stearns,
Boston, Architects

—Oklahoma City, Okla. Steps have been taken for the annexation of the Britton school system by the Oklahoma school authorities. The Britton schools are housed in two school buildings, valued at more than $70,000. The school system has a bonded indebtedness of $70,000, with more than $35,000 in the sinking fund. It is the plan of the Oklahoma City authorities to transport all senior high-school students to an established school in the city-school system.

—Sioux Falls, S. Dak. The school board has adopted a new rule governing the employment of married women teachers. Under the rule, the board will not employ a married woman teacher whose husband is capable of supporting the family. Any teacher who marries during the term of her employment automatically loses her position. The rule does not apply to teachers at present employed by the board, nor to teachers whose husbands are physically or mentally incapacitated.

The board has inserted a clause in each teacher's contract to the effect that no woman teacher may marry during the term of her contract.

—The educational museum of the St. Louis, Mo., schools has been temporarily placed in a large store and office building, following the tornado which struck the City of St. Louis on September 29. The former building was so badly wrecked by the storm that it cannot be used without an entire rebuilding.

It has been possible to save all the museum material as well as the traveling library consisting of 125,000 volumes of supplementary reading material. The teachers' library suffered the heaviest damage, as only about 50 per cent of the material could be recovered from the ruins of the building.

—Cincinnati, Ohio. The school board has entered into an arrangement with the medical school of the University of Cincinnati for medical and surgical service for the pupils attending the Glenview and Hillcrest schools, which is to include a careful medical examination and supervision of all students, as well as such medical and surgical service as they may need. The medical school will be compensated at the rate of $2,000 a year.

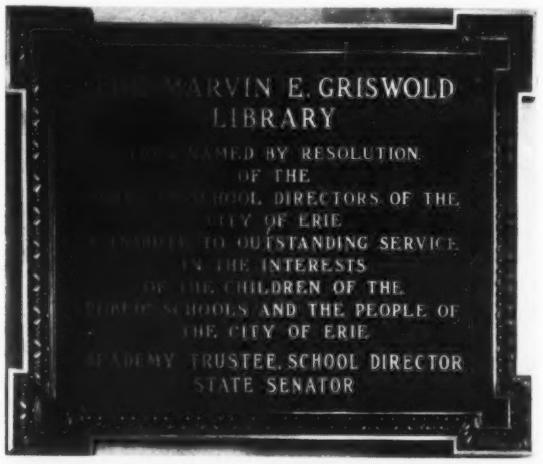
—The Denver board of education has begun an experiment in a room of one of the elementary schools to determine the value of vita glass. A careful check will be kept of pupils of this and other rooms for comparative purposes. A report of the results of the experiment will be published.

—The school department of Oklahoma City, Oklahoma, has organized a junior police force. Each school is provided with a squad of boys who look after the traffic regulations near the same. The boys are regularly appointed by the mayor and are provided with police badges.

—Contributions to the pension fund are not required from school-teachers, under the plan in operation at Nashville, Tenn. Taxation not exceeding one tenth of one mill of assessed valuation provides the monies required.

Under the system, the pensions correspond with the pay of beginning teachers, the idea being that the beginning teacher receives the minimum for living requirements. The pay of the pensioner varies with the changes in the pay of the beginning teachers and it is possible to prevent the distressing conditions that happen during an inflated period when the pensions do not provide a living.

No pension may exceed one half the salary of the teacher at the time of retirement, and the smallest pension paid is $600 a year. Seventeen teachers are now on the retired list.



A GRACEFUL TRIBUTE.

The memory of M. E. Griswold is kept before the school children of Erie, Pa., by the above tablet in the Academy High School.

—Minneapolis, Minn. The board of education has recently amended the rules governing the qualifications of teachers. The amended rules read as follows:

To obtain a position in class two, a teacher must have an academic baccalaureate degree from a standard college, with at least fifteen semester credits in education, not including general psychology. The work in education must include at least three semester credits in special-methods courses in teaching, and three semester credits in observation and practice teaching in the high-school subjects for which she applies. Such a teacher must have taken either a major or minor at the college in the subject for which she applies.

The board has also amended the rule governing teachers who are subpoenaed as witnesses in court cases. The rule now reads as follows:

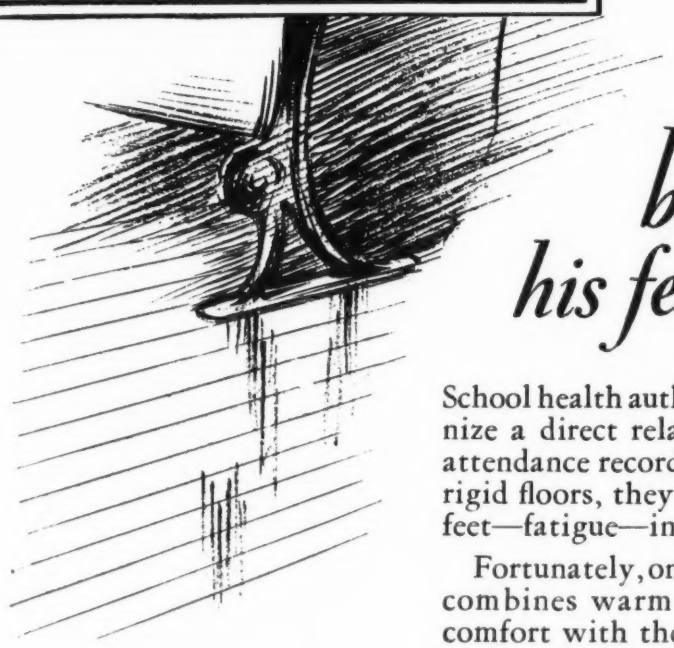
Teachers who are absent as witnesses in any case in court, where duly subpoenaed as such, will be entitled to not more than one day's pay while attending as such; in cases where the board of education is a party in the litigation, teachers will be entitled to pay while attending as a witness at the request of the board.

—Prof. W. L. Hughes, of the A. & M. College of Texas, in a recent statement, declared that Texas needs a state board of education composed of men and women selected for more than two years, whose duty it will be to administer the school system through a state superintendent appointed by that board. Prof. Hughes spoke on the subject, "A School System for Texas," and urged that the county be made the unit of administration for taxing, for roads, for administration, and for many other matters. He argued against a multiplicity of school boards in small school districts and criticized the present plan of electing the county superintendent by popular vote.

—The Colorado Educational Association, at its annual meeting, approved a resolution seeking to effect a reorganization of the state board of education and the removal of the state superintendent's office from political influence.

He never misses a day of school





because the floor beneath his feet is warm, dry, resilient, clean

School health authorities now recognize a direct relationship between attendance records and floors. Cold, rigid floors, they say, mean chilled feet—fatigue—increased absences.

Fortunately, one flooring material combines warm, dry, cushioning comfort with the qualities of lasting wear which school use demands—Northern Hard Maple.

This resilient flooring material is remarkably tough-fibred and tight-grained. It will not sliver or splinter. Scuffing, youthful feet and the moving of equipment simply make it smoother with time. Northern Hard Maple actually outwears stone!

Maple, moreover, because of its permanent smoothness, is exceptionally easy to keep clean. It offers no open lodging places for dust and germ-laden dirt to collect. And it permits quick, simple, permanent anchorage for seats.

Hundreds of schoolboards have been guided by these facts in selecting flooring. They have chosen Maple for schoolrooms, corridors, gymnasiums, assembly halls. Consult your architect about Northern Hard Maple.

Maple Floors in Color

With fadeless penetrating stains recently developed, hard Maple Floors are now made to take a variety of beautiful, lasting color finishes—opening up entirely new possibilities for attractive decorative effects. Standard finishes made only by The Marietta Paint & Color Co., Marietta, Ohio, as follows:

Early American, Spanish Brown, Autumn Brown, Silver Gray, Dove Gray, Royal Blue, Pastel Green, Orchid, Seal Black, Natural.

Write for free booklet, "The New Color Enchantment in Hard Maple Floors."

Let our Service and Research Department assist you with your flooring problems. Write us.

MAPLE FLOORING MANUFACTURERS ASSN.
1780 McCormick Building
Chicago

Guaranteed Floorings

The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**

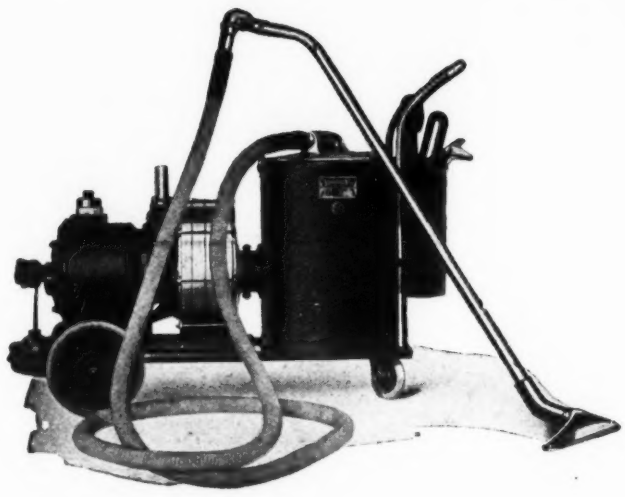
Floor *with* Maple

"CLEANLINESS KNOWS NO SEASON"

Save 40% and have cleaner, more healthful schools

"INVINCIBLE" Portable Vacuum Cleaners meet every school requirement. They have tremendous cleaning power, are easily handled, and are sturdily constructed to give a life time of satisfactory service.

"INVINCIBLE" Portable Vacuum Cleaners require no intricate piping and no long, heavy lengths of hose. Their maintenance and operating cost is extremely low.



"INVINCIBLE" Portable Vacuum Cleaners clean floors of any kind, blackboards, chalk troughs, erasers, walls, ceilings, window ledges and in fact every nook and corner of the entire building.

Write us today for complete information and report on cleaning schools.



INVINCIBLE VACUUM CLEANER MFG. CO.
DOVER, OHIO, U. S. A.

BUILDING NEWS OF THE SCHOOLS

THE SCHOOL-BUILDING SURVEY AT PONTIAC, MICH.

A most important step in connection with the new school-building program at Pontiac, Mich., has been taken with the decision of the school board to undertake a comprehensive school-building survey. The survey which is the first ever to be undertaken by the local school system, will be conducted under the direction of Prof. P. C. Packer, of the School of Education of Iowa State University. Prof. Packer will be assisted in the work by a large staff of assistants who will work out the details connected with the study.

The building survey is intended to furnish data not only for the immediate building program but for a long period in the future. It will provide for a scientific development of the building program as against a haphazard and chance development. The scope of the survey will include the following:

1. Disposition of the present plan and sites.
2. Location of the sites needed now and in the future, within the present school district, including existing and prospective annexations.
3. Financial and bond program for capital outlay.
4. Preliminary investigation as to the immediate building program.

SCHOOLHOUSING IN NEW JERSEY IN 1927-28

The state education department of New Jersey has reported a total of 739,010 pupils enrolled in the public day schools of the state for the school year ending June 30, 1927. This was an increase of 18,664 pupils, or 2.6 per cent over that of the school year ending in June, 1926. To house these 739,010 pupils there were 2,287 school buildings, of which 62 were rented. Forty-seven more school buildings were reported for the school year 1926-27 than for 1925-26. In these 2,287 school buildings, 20,190 classrooms, which is an increase of 616 classrooms over the previous year, were provided. During the past school year there were 54 new buildings completed and 49 buildings were enlarged or remodeled.

To properly house the large number of pupils enrolled in the public day schools during the school year 1926-27, there should have been 20,528 classrooms, based on 36 pupils to a classroom in the 514 districts maintaining schools. Five hundred and eighteen classrooms were needed to care for the increase in pupil enrollment. The increase in classrooms during the past year was adequate to take care of the increase in enrollment but not sufficient to take care of the large increase of pupils in part-time classes, or housed in portable and rented buildings.

For the state as a whole, there was an enrollment of 691,662 pupils, as of October, 1927. The number of pupils on part-time was 47,152, which was 3,708 less than that reported for November, 1926. This year there were 95 districts with pupils on part-time, which is an increase of one over that of the previous year. There were in November, 1926, accommodations for 12,839 pupils in portables and rented buildings, while this year the total was 10,981, which is a decrease of 1,858 seatings. This year 39 districts use portables to relieve the seating shortage as compared to 43 in 1926. Fifty-one districts are renting rooms for classroom purposes this year, as compared to 56 in the previous year.

The study of schoolhousing accommodations shows that the school-building shortage has not improved very much since last year. It was found that 7.2 per cent of the pupils enrolled in these districts in October, 1927, were on part-time as compared to 7.4 per cent in November, 1926, and 8 per cent in October, 1925. Twenty city districts do not have any pupils enrolled on part-time during the present year, as compared to eighteen districts in the previous year. Ten city districts have increased their per cent of total enrollment on part-time over the previous year, while 12 have decreased the per cent of pupils enrolled on part-time, but only 12,930 seatings were provided, and there were 27,016 pupils on part-time in October, 1927, and only 10,436 seatings are provided for 1927-28. Last year there were 14 city districts using portables and 7 renting rooms for classroom purposes, while this year 11 use portables and 5 use rented rooms to relieve the seating shortage. The number of seatings in portable and rented rooms has decreased from 5,982 in 1926 to 4,819 in 1927.

During 1926-27 there were 21,596 pupils on part-time and 26,971 seatings were provided, and there were 18,376 pupils on part-time as of October, 1927, and 23,556 seatings are to be provided for 1927-28.

The study shows that the urban districts are growing more rapidly than the city or rural districts and are reducing their part-time enrollments by providing more seats. The cities have a larger number of pupils enrolled and also a larger number of pupils on part-time than the urban and rural districts. Although the enrollment and the number of part-time in cities are larger than the urban districts, the number of new seatings provided in 1926-27 and to be provided in 1927-28 are less than one half of the number provided and being provided in the urban districts. For the state as a whole, 43,856 new seatings were provided in 1926-27, and 37,411 new seatings in 1927-28. In November, 1926, there was a shortage of 63,699, including the seating accommodations in portable buildings and rented rooms. Using the same basis, the seating shortage of October, 1927, was 58,133, or a decrease of 5,566 seatings.

THE JANITORS' SHORT COURSE AT KANSAS TEACHERS' COLLEGE

During the past winter, an entire week at the Kansas State Teachers' College, at Pittsburg, was devoted to a special problem in vocational training, that of training the janitor and engineer in a short, intensive course.

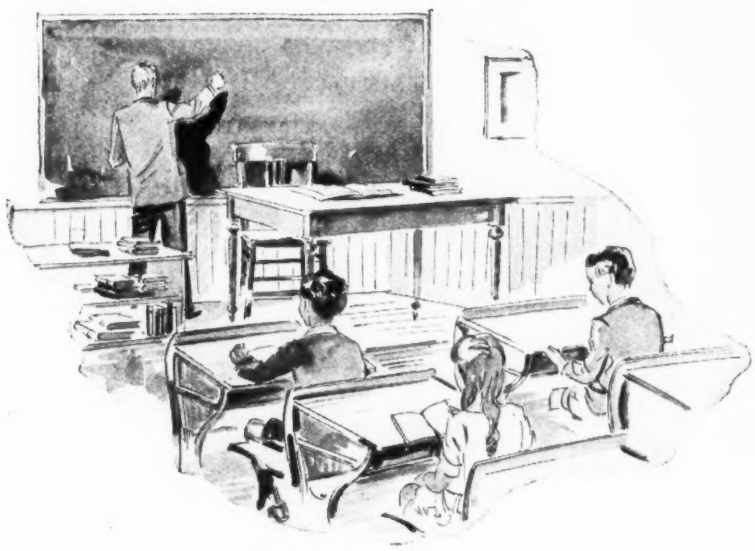
The short course for janitors and engineers was inaugurated by the Smith-Hughes vocational department, and janitors and building custodians throughout the state were in attendance. The course opened with an enrollment of 27 janitors and engineers.

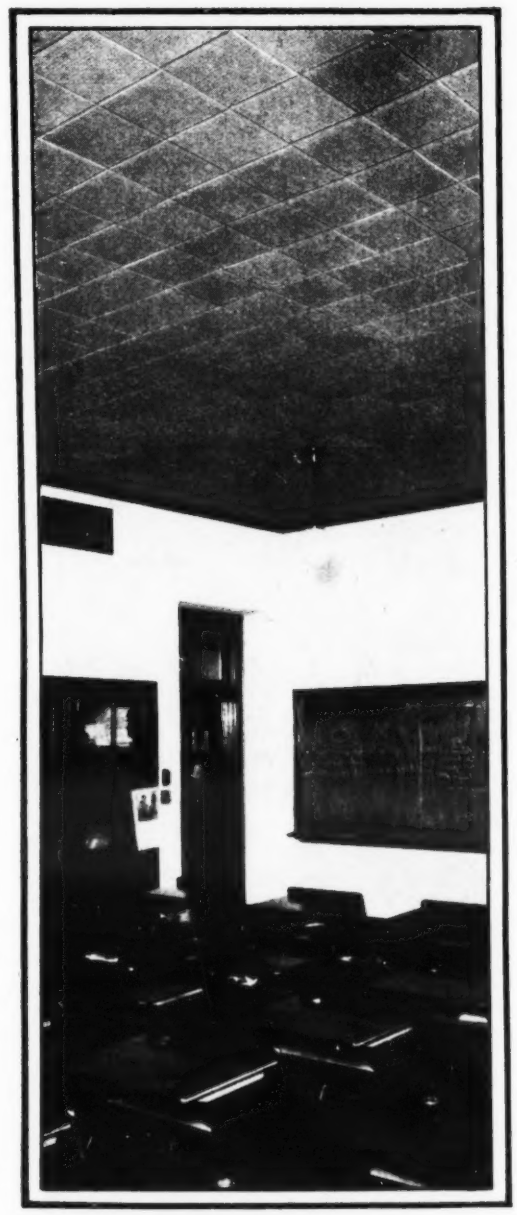
Mr. M. M. Rose, superintendent of schools at Pittsburg, opened the program with a talk on "The Janitor, the School, and the Community." Mr. W. R. McNeice followed with a talk and demonstration on "Mops and Mopping." Mr. Ed. O'Dower discussed "Cleaning and Oiling of Wood Floors," while Mr. W. R. McNeice talked on "Repairing Locks and Adjustment and Repair of Door Checks."

On the second day, Mr. Ed. O'Dower talked on "Principles of Ventilation," and Prof. G. E.

(Concluded on Page 108)

Quiet
is needed in *every* school...





In this classroom students are enabled to concentrate because Acousti-Celotex keeps the room free from disturbing noises. L. C. Humes High School, Memphis, Tenn. Pfeil and Awsumb, Architects; Ryan Sales Company, Acousti-Celotex Contractor.

And the SUREST way of obtaining quiet is by applying Acousti-Celotex to ceilings.

QUIET has always been recognized as a necessary factor in the efficiency of any school.

For quiet helps your students to concentrate . . . to do better school work. It relaxes their nerves, conserves their energy and keeps them more cheerful.

However, you cannot obtain quiet simply by cautioning everyone not to make a noise. Your experience tells you that this method is ineffective.

Make sure of having quiet by applying Acousti-Celotex to ceilings. School authorities everywhere have discovered that Acousti-Celotex *swallows up* all kinds of disturbing noises. And it reduces echoes and reverberations in school auditoriums.

Acousti-Celotex, type BB, has a sound-absorbing efficiency of 70%—the highest of any material on the market. Small openings, drilled *deep* into the tiles, act as tiny tubes in carrying sounds to the noise-absorbing fibres *inside*.

Because of these deep openings, paint applied to the surface does not interfere with the sound-absorbing properties of Acousti-Celotex. So you can paint your ceilings white, for indirect light reflection, or in attractive colors and designs.

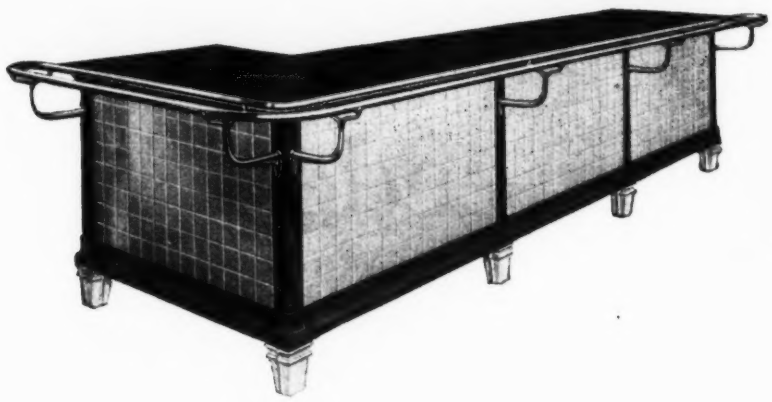
Acousti-Celotex also is sanitary and easy to keep clean. And since it comes in single complete units it is easily installed in any building, new or old.

The Celotex Company will be glad to tell you more about the color effects you can obtain with Pre-decorated Acousti-Celotex. And you will be pleasantly surprised at how little it costs.

THE CELOTEX CO., Chicago, Ill.
Mills: New Orleans, La.
Branch Sales Offices in many principal cities (See telephone books for addresses)
In Canada—Alexander Murray & Co., Ltd., Montreal

ACOUSTI-CELOTEX

FOR LESS NOISE—BETTER HEARING



WRITE for colored circular showing the Siebert Cafeteria counter—a sectional counter shipped knocked-down and set up with screw-driver and a pair of pliers. Practically any panelling material desired. No installing trouble.

Sold exclusively by SANI PRODUCTS CO., North Chicago, Ill.
Selling Organization for Sani Metal and Sani Onyx

Sani Products

COMPLETE FOOD AND DRINK EQUIPMENT

(Concluded from Page 106)

Abernathy discussed "The Judging Quality of Coal."

On the third day, Mr. W. R. McNeice talked on "Keeping the Power Plant Clean," Mr. W. H. Matthews discussed "The Repair of Electrical Fixtures," and Mr. W. R. McNeice talked on "Dusters and Dusting, and the Cleaning of Windows."

On the fourth day, Prof. W. A. Schuster talked on "Steam and Hot Water Heating," Mr. Ed. O'Dower discussed "Plumbing Repairs," Prof. J. C. Woodin talked on "Furniture Refinishing," and Prof. H. H. Hall took up the subject, "Care of Lawns and Shrubs." Mr. W. R. McNeice closed the session with a talk on "The Selection of a Good Janitor."

The last session was devoted to a talk on "Care of Electric Motors," by Prof. E. W. Jones, and "The Care of Toilets and Drinking Fountains," by Mr. McNeice.

SCHOOL BUILDING NEWS

—An addition will be erected for the high school at Perry, Okla. The building which will contain an auditorium and gymnasium, will be erected at a cost of $50,000. It will be completed in September, 1928.

—The Building Trades Employers' Association, one of the highest authorities in the building industry of New York City, recently adopted a resolution calling attention to the distinguished service rendered by Mr. William H. Gompert as school architect for the New York City board of education, and commending him for the fine manner in which he has conducted the school-building program of the city. Mr. Gompert, who resigned as school architect in November, 1927, is the architect of all the new school buildings to be completed within the next eighteen months.

—Mt. Vernon, Ind. The board of education has awarded the contracts for the construction of a high school to cost $180,000.

—Woodward, Okla. The board of education has taken steps toward the erection of a high school to cost $120,000.

—Gainesville, Texas. On March 29, the school district voted on a bond issue of $200,000 for new school buildings and city improvements amounting to $110,000.

—The school board of Tulsa, Okla., has asked for a bond issue of $1,500,000 for new school buildings.

—New Castle, Pa. The George Washington Junior High School, to be opened next September, was erected at a cost of $700,000. An addition to the senior high school will be completed during the summer, at a cost of $250,000.

—Lancaster, Pa. A new grade school is being erected, and two other schools are being enlarged with the proceeds of a bond issue of $1,250,000 voted in the school district last April. The grade school will be occupied in September, 1928, part of the junior high school in September, and the other parts in February of the following year.

—A modern brick building has replaced the old three-story wooden structure at Croton Falls, N. Y., in rural school 2, of central rural school district 1 of the town of North Salem. The new school was occupied last fall and was erected at a cost of $75,000. It contains six classrooms, an auditorium, a gymnasium, and a principal's office.

—A two-story school building has been erected at Johnston, R. I. W. M. R. Walker & Son, Providence, R. I., are the architects of the building.

—At the March election, the school trustees of Moscow, Idaho, were authorized to issue bonds in the amount of $100,000 for a grade school. Messrs. Whitehouse & Price, Spokane, Wash., will prepare the plans for the building, which is to be ready for use in September, 1928.

—Velva, N. Dak. At a recent election, the citizens approved a bond issue of $70,000 for a new building. The bond issue followed a survey of the school plant, conducted by Supt. C. L. Codding. An educational campaign for a new building was conducted, with the various organizations of the town cooperating. When the bond proposal came to vote, it was passed with a four-to-one majority at the polls. The present enrollment of the schools is thirty per cent higher than the average for the previous ten-year period.

—Mr. John Hunsicker, architect of the school board at Eugene, Oreg., has completed a survey of the school plant, to determine the value of the buildings, including floor coverings, but excluding furniture and equipment. The estimated value of the school plant, according to Mr. Hunsicker, is $730,678, while the cost to the city for replacement would be $848,584.

—Springfield, Mass. The city property committee has asked the mayor for an appropriation of $700,000 for new schoolhouse construction work. This amount is deemed necessary in order to raise the standard of the schools to a point where all demands will be met.

—A permanent school-building fund to cover the annual building needs of the schools has been suggested by Principal W. E. Evans of the Knoxville, Tenn., High School. Mr. Evans shows that the schools are just catching up since $2,500,000 was appropriated two years ago for new schools. A permanent building fund, says Mr. Evans, would provide more room as needed and would prevent the recurrence of the same conditions.

—Kingsport, Tenn. Supt. R. N. Robinson, in a recent statement, pointed to the rapid increase in the number of pupils in the schools, and to the difficulties resulting from the overcrowding of classes and the inadequacy of the housing facilities. Mr. Robinson showed that the enrollment in the school has grown from 2,237 in January, 1927, to 2,565 in January, 1928.

—Wilmington, Del. Bids have been received for an eight-room addition to the Oak Grove School, which will be the beginning of a state school-building program of $1,500,000 during the school year. At present, eleven schools are either under construction, or planned for early erection. The Delmar School, which is ten per cent completed, will have sixteen rooms and will be ready next September. Bids have been received for the construction of the Warner School, which will be erected at a cost of approximately $675,000.

THE TRUE TEACHER

The true teacher combines power with love—force and determination with sympathy for all that lives—faith with actual knowledge and practical application. Such a mind is powerful and kind; tender in heart, a giant in soul. Such a mind does not grieve over loss or weakness, but lives and works to give strength to the weak, freedom to those who are in bondage, peace to those who are in pain; and seeks to reveal the pedagogic law through which all loss may be restored a hundredfold and more.—Eugene Bertram Willard, Chelsea, Massachusetts.

American Cities

SAN FRANCISCO, CALIFORNIA
Union Square
Drawing by M. PAUL ROCHE (Series No. 13)



THE NATION-WIDE popularity of Duraflex-A—the permanent, resilient flooring material—is only natural. Its surface is seamless, smooth and durable. Pounding footsteps have no effect on it and all sound is deadened. Dust cannot adhere to it. Nor can acids, alkalies, fire or water mar its enduring beauty. Duraflex-A meets *economically* every requirement of modern construction. For complete data and specifications, write: The Duraflex Co., Inc., Baltimore, Maryland. Offices in principal cities.

DURAFLEX-A FLOORING



A Duraflex-A Installation
LIBRARY, PACIFIC SCHOOL OF RELIGION, BERKELEY, CALIF.
MR. W. H. RATCLIFFE, *Architect*

Leading Schools Specify
NORTON
as the modern system of operating and controlling doors



THE NORTON CLOSERS WITH HOLD-OPEN ARMS ARE BEST SUITED FOR YOUR SCHOOLROOM DOORS . . . BECAUSE

THEY ARE SAFE
Uniform closing speed (adjustable from two minutes to two seconds) allows the pupils to pass through the doors without danger of being injured.

THEY ARE NOISELESS
Speed at the latch can be set to permit absolute quiet in closing.

THEY ARE EFFICIENT
When it is desirable to hold the door open at a predetermined position a slight pull will set it—or, being set—a slight pull will release it.

Just a Post-Card Will Bring Detailed Information or a Service Man for Free Consultation.

KENOSHA, WIS.
Central Senior High School.

Here Is a Partial List of Leading Schools Who Have Specified Norton Equipped Doors.

Skinner Junior High School, Denver, Colo.
North East High School, Minneapolis, Minn.
Chicago Public Schools
Toronto Public Schools
East Side High School, Cincinnati, Ohio
Cass Technical High School, Detroit, Mich.
Technical High School, Omaha, Nebr.
Bolton High School, Alexandria, La.
North High School, Omaha, Nebr.
Oliver Hazard Perry Junior High School, Cleveland, O.

THE NORTON DOOR CLOSER CO.
2900-2918 N. Western Avenue, Chicago, Illinois

NEWS OF THE SCHOOL BOARDS

APPOINTIVE VERSUS ELECTIVE SCHOOL BOARDS

At Rockford, Ill., the question of replacing the present appointive school board of ten members with an elective school board of fifteen members was submitted to a vote of the people with the result that the elective system was snowed under. The pros and cons of the question were presented to the voters as follows:

Present Appointive Board

The board of education has ten members who are appointed for two years each from the city at large by the mayor and confirmed by the city council.

No school election necessary.

Board of education has authority to locate a school site.

Board of education has authority to purchase a school site.

Board of education has authority to build a schoolhouse.

Board of education has authority to build a temporary building.

No election necessary. The board of education has authority to locate a school site.

No annual school election or elections on new sites, purchase of sites, and building schoolhouses will be necessary, therefore no increase in taxes.

The scheme has been in operation for 22 years in Rockford.

The present scheme of board of education organization is practically what it would be, according to the general school law of the state, when Rockford reaches 100,000 population.

Elective Board of Education

Board of education has 15 members. (Term of office three years.)

President of board of education elected for one year.

President and members elected by city at large.

Annual school election third Saturday in April of each year.

Board of education cannot locate a school site without submitting the proposition to the voters in an election.

Board of education cannot purchase a schoolhouse without submitting the proposition to the voters in an election.

The power to locate a school site without submitting the proposition to the voters may be specially given to the board of education by a vote of the people.

Cost of each annual school election and school elections in connection with new sites, purchase of sites and building schoolhouses with increase taxes. Each election will cost about $3,000.

This scheme has never been tried in Rockford.

AMONG BOARDS OF EDUCATION

—Perry, Okla. There will be no change in the personnel of the school board this year as all members hold over for the year. The members of the board are as follows: President, Dr. O. W. Boyer; vice-president, Mrs. Anna G. Stohl; clerk, Mr. J. E. Dolezol; Mr. R. W. Freeman and Mr. W. H. Frazier, members.

—The board of education at Clearfield, Pa., is composed of the following: President, Mr. A. D. Bigler; secretary, Mr. E. Clair Davis; treasurer, Mr. Ward O. Wilson; Mr. C. G. Johnston, Mr. A. M. Gorman, Mr. E. L. Sairey, and Mr. Ralph Jordan, members.

—The board of education of Arlington, Mass., has created the office of assistant superintendent in charge of business affairs, with the appointment of Mr. Donald W. Height to the position. Mr. Height will have charge of the work of purchasing and building maintenance. The change relieves Supt. C. A. Moody of the business end of the school system, giving him more time for the strictly supervisory work of the schools.

—The board of education at Woodward, Okla., is composed of the following: President, Mr. M. B. Haley; vice-president, Mr. R. J. Bonifield; secretary, Mr. R. D. Dockerty; Mr. R. C. Moore, Mr. Roy Adams, and Mr. Claude Love, members.

—On April 3, the voters of Gainesville, Texas, elected five councilmen at large. In addition to employing a city manager, the council will appoint a school board of seven members.

—At the school-board election recently held at San Antonio, Texas, the mayor announced that he would vote as an individual and keep his hands off as far as wielding any political influence was concerned. "The schools are out of politics as far as I am concerned," he said, "and there will be no instructions to the supporters of the city administration as to how to vote."

—Criticism has been made that the school board of Iron River, Mich., conducts its meetings behind closed doors. Dr. Tyler, president of the board quotes C. L. Goodrich of the state department of education in defense of his position: "The board by a majority vote controls its meetings. They are supposed to be private unless otherwise ordered by the board. The board may vote to admit certain ones, or may throw the meeting open to the entire public. It will be permissible and lawful to conduct meetings behind closed doors." Mr. Goodrich further says that it is optional with a board whether it publishes its proceedings in a newspaper. The records of meetings, however, must always be accessible to the public at the secretary's office, where they may be read by anyone who desires to find out what the board has done.

—With a view of eliminating political and factional divisions in the school board, Albert Baker, attorney for the Indianapolis, Ind., board of education suggests that instead of electing all the members at one time they be elected in series of members at two-year intervals. One suggestion was for a board of nine, serving six years, three elected every two years. Another proposal was for a board of nine appointed by Marion county court judges, three to be named every two years. A third proposal was for a board of five, serving five years, one member being appointed by the judges each year.

—"If you must elect both a rascal and an honest man, elect the rascal governor and the honest man a member of the board of education," said C. H. Hartley, of West Virginia University, before a Morgantown audience. Mr. Hartley based this advice upon the fact that $49.25 of every $100 paid as direct taxes in West Virginia from 1915-25 was expended by boards of education, whereas only $6.12 was spent by all departments of the state government.

—Members of the board of trustees of the Galt, Calif., school district have been ordered to pay the claim of $1,296 made by Davis, Heller & Pearce Company, architects of Stockton, under the terms of decision given by the superior court. It appears the architects had served in the construction of the high school up to December, 1926, when the

(Continued on Page 113)



Wooster Safe-Groove Treads are easily and quickly installed on new or old stairs of any type of material. The treads may be furnished in steel base, yellow brass base or non-tarnishing white brass base.

Truly an *Automatic* Safety Device

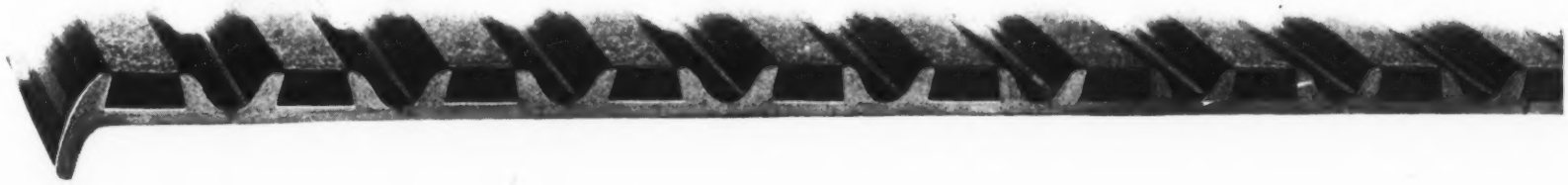
WOOSTER SAFE-GROOVE TREADS are as truly automatic as any machine or device with moving parts which functions automatically. As a safety-device, Wooster Safe-Groove Treads work automatically without thought on the part of the user.

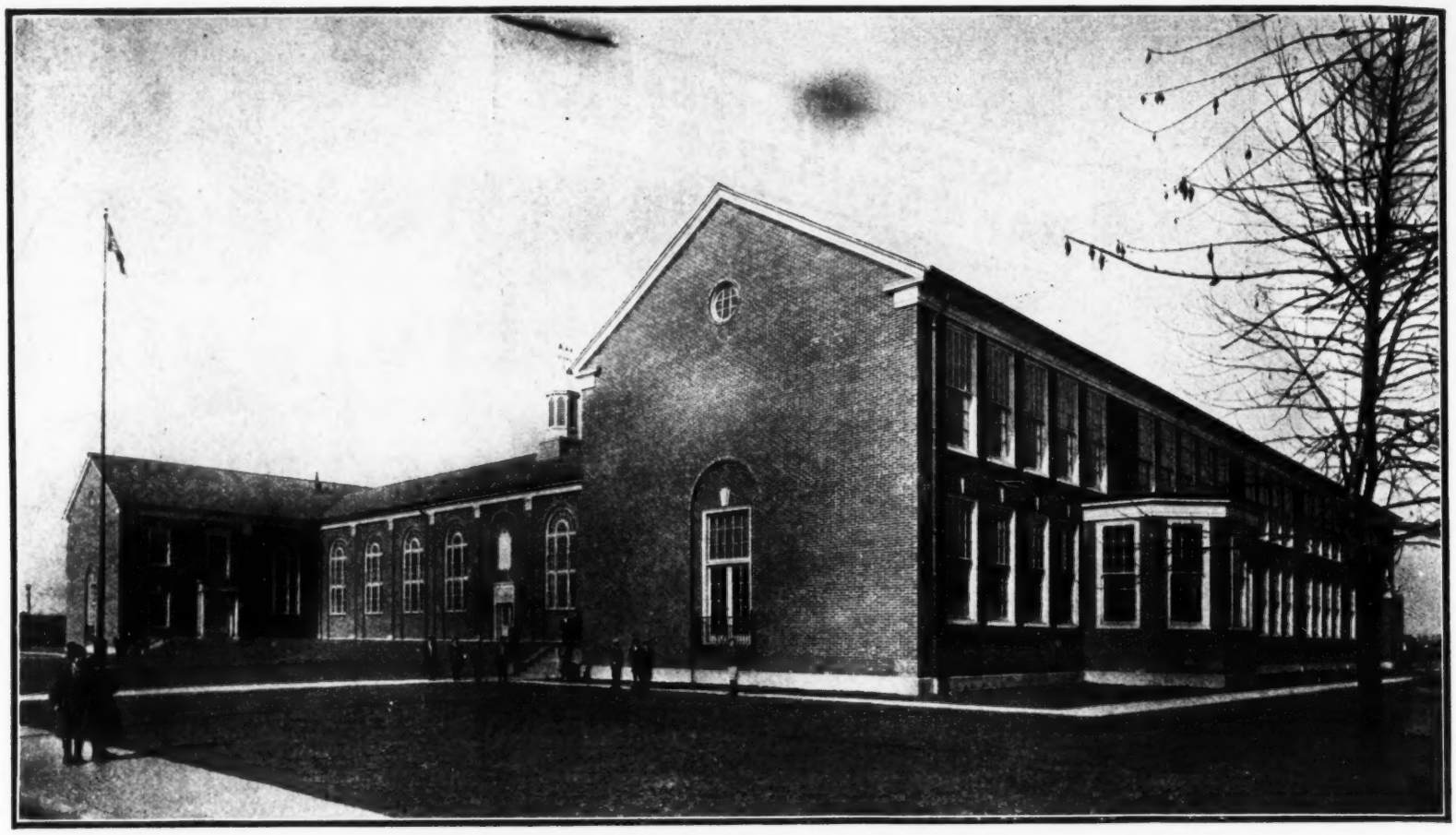
Matches, pencil stubs, elastic bands and other things which litter stairways, automatically drop into the deep, narrow grooves in Wooster Safe-Groove Treads and are held safely away from the foot. On stairs equipped with these treads the foot comes in contact only with the flat ridges of carborundum which wear slowly and evenly, giving many years of wear and protection against slipping accidents.

Wooster Safe-Groove Treads help to keep a building clean, too, because in wet or snowy weather the treads act as a foot scraper and prevent snow and mud from being tracked through corridors. The deep grooves are easily cleaned with one stroke of a broom and the walking surface is always clear.

THE SAFETY STAIR TREAD CO.
P. O. Box 198-C ∴ Wooster, Ohio

WOOSTER
SAFE—GROOVE STAIR TREAD





The Daniel Kiser Elementary Junior High School, Dayton, Ohio; Wm. B. Ittner, Inc., St. Louis, Mo., Architect; Paul C. Stetson, Supt. of Schools

Avoid Replacement Expense by using Copper and Brass

Our Building Service Department Is At Your Disposal

One of the functions of this Association is to offer the facilities of its technical staff in the solution of any problems pertaining to the use of Copper, Brass and Bronze. If we can be of service to you in this connection, please feel free to call upon us. There is no cost or obligation.

COPPER roofing materials—Flashings, Leaders and Down Spouts were used throughout in the construction of The Daniel Kiser High School of Dayton. The economy of roofing with Copper has been recognized by hundreds of public and private schools all over the country.

Leaky roofs, leaky plumbing, costly repairs and damage to expensive interior equipment are unknown where Copper Leaders and Down Spouts, Copper Flashings and Brass Pipe are in service.

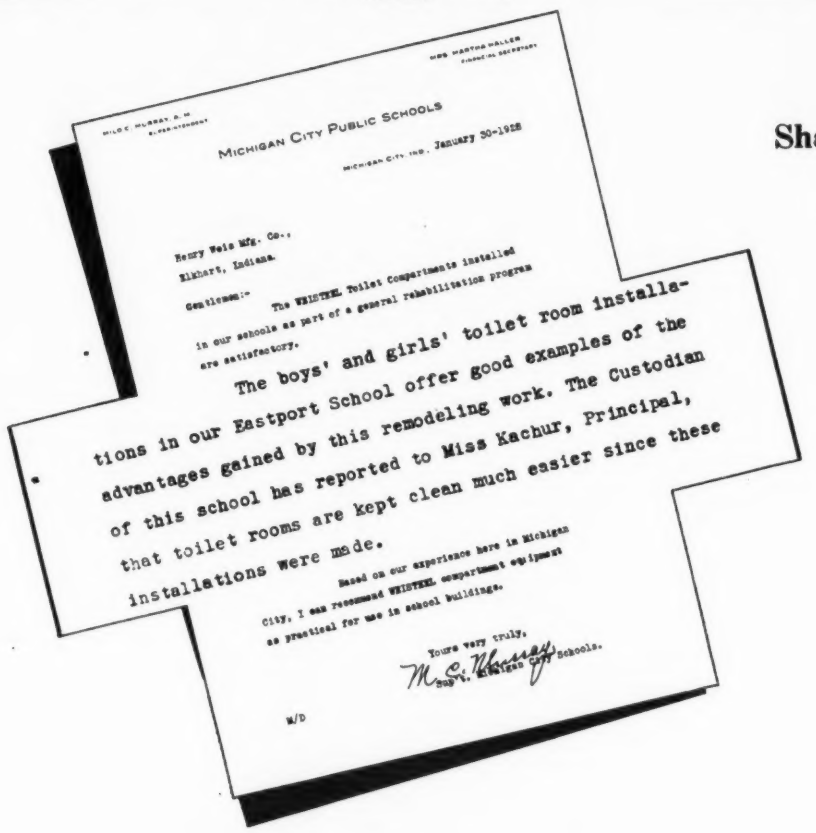
Attractive appearance and greater durability are insured where Brass or Bronze hardware fixtures are present.

For long service, economy and attractive appearance specify these enduring metals—Copper for roofing, Brass for water pipe and Brass or Bronze for hardware and fixtures.

COPPER & BRASS
RESEARCH ASSOCIATION
25 Broadway, New York

Midwestern Office	*Canadian Office*	*Pacific Coast Office*
Landreth Building	67 Yonge Street	Architects Building
St. Louis, Mo.	Toronto, Ont.	Los Angeles, Cal.

WEISTEEL
TRADE MARK REGISTERED



Toilet and Shower Compartments

Dressing Room Partitions

Hospital Cubicles

HENRY WEIS MANUFACTURING COMPANY, INC.
Elkhart, Indiana
(Formerly Atchison, Kansas)

WEISTEEL
TRADE MARK REGISTERED
COMPARTMENTS
Representatives in All Principal Cities

BRANCH OFFICES:
NEW YORK CHICAGO
LOS ANGELES BOSTON
ATLANTA

(Continued from Page 110)

school board terminated their services with the explanation that there was no money in the district funds to pay their claim.

In a previous suit, the architects secured judgment for the sum, but the school board refused to pay, claiming that money secured for school purposes in one year could not be used to pay for services rendered or supplies furnished the previous year.

—The legislature of New York state has passed bills whereby the responsibility of boards of education in matters of finance is definitely fixed. Budgets must be provided. Provision is made that where the school tax is collected separately and the budget is not subject to change by the city administration, the budget as finally adopted by the board of education shall be sent directly by the board to the tax-collecting authority. In those cities where the budget is not subject to revision by city authorities the board of education before finishing its budget is to be required to publish the proposed budget in the official newspaper of the city together with the notice of the time and place of a public hearing before adoption of the budget.

—A bill placing the financial operations of school boards under the control of the mayors of the respective cities, recently came under discussion before the legislature of Massachusetts. Mayor John E. Walsh of Revere, favored the bill and Payson Smith, state commissioner of education, opposed it.

—A test of Attorney General Potter's recent decision prohibiting religious instruction in the schools of Michigan is to be made by the Detroit board of education in the near future.

—The school board of Peoria, Ill., has removed all restrictions on the number of meetings political clubs may hold in public schools and has granted free use of the buildings where no admission fee is charged. The charge of $10 for a grade school, and $25 for a high school, will be maintained for meetings where an admission fee is charged. All clubs must pay a janitor's fee of $3 when not paying for the use of the buildings. The privilege is limited to ward clubs of either the Democratic or Republican party.

—Supt. H. P. Shepherd of Knoxville, Tenn., has refused to allow the public-school children to compete in a prize essay contest. Mr. Shepherd pointed out that the schools are glad to take part in a worthy cause, but not when prizes are offered.

—Hartford, Ind. Fraternities and sororities have been barred from the schools in an order issued by the school board.

—Martinez, Calif. The school board has approved plans for the development of the athletic field and for the beautification of the school grounds. The program is of a rather extensive character and is intended not only for the accommodation of the students but to relieve a lack of community athletic facilities.

—Hamden, Conn. The school board has been notified that the tuition rates for pupils attending the New Haven schools have been raised from $123 to $129 per capita.

—Evansville, Ind. The school board has retained the rule against dancing, which was adopted ten years ago. Students had asked the board to permit dancing but the board refused the request.

—Members of boards of education may vote themselves salaries if the voters of the district approve the compensation, but they may not alter the salaries during their terms, according to a recent ruling of the attorney general of Michigan.

—Fort Lee, N. J. The school board has raised the tuition rate for nonresident pupils from $75 to $125 per year.

—The school board of Dist. No. 3 of Avon township, near Pontiac, Mich., has taken steps to force Daniel P. Henry, the treasurer, to turn over the funds and records to Mr. Thomas W. Lacy, the new treasurer. The action follows an audit of the treasurer's records recently completed.

—Fond du Lac, Wis. A rule in force in the schools that persons, unknown to school authorities and desiring to converse with pupils during school hours, must identify themselves, was recently invoked at the Bragg School. A man had been released from jail and rearrested a short time afterward for creating a disturbance at a residence where he formerly boarded. Later the same man appeared at the school and asked for an interview with his landlady's daughter. His request was denied and the girl was sent home under the protection of an officer.

—Minneapolis, Minn. An extensive study of salaries of all groups in the school system has been begun by the school board. The study will include the schedules of teachers, principals, nurses, and janitors, and precedes the proposed establishment of new schedules comparable with those of other cities.

—Durham, N. C. The school board has awarded contracts for school equipment amounting to $33,142. The purchase of general equipment amounted to $24,680, while special equipment for the manual-training and domestic-science departments amounted to $8,462.

—Ponca City, Okla. An ordinance creating a board of education consisting of nine members, authorizing the election of a treasurer, and fixing the time for election of the board members and treasurer has recently been passed.

Under the new ordinance, the city is divided into nine districts, seven ward and outlying districts. Beginning in 1929, three board members will be elected each year. Members from ward 2 and 5 will be elected in 1929; members from wards 4 and 5 and outlying districts, and members of wards 1, 3, and 7 in 1931. In 1929 a treasurer will be elected, the length of term being two years.

—Rockford, Ill. At the April election, the board of education submitted to the voters the proposal to introduce an elective school board to replace the present board of appointive members. Under the elective system, the board would have fifteen members, each member to be elected for a term of three years. The president would be elected by the people for a term of one year. The proposal was defeated at the hands of the voters.

—Reedsburg, Wis. The members of the school board will this year be elected at the general election, in accordance with the election law passed by the legislature of 1927.

The new method places the responsibility directly on the voters. The persons to be voted on are

(Concluded on Page 116)

AIM OF SUPERVISION

Since the public that supports education is practical minded it behooves teachers to justify public faith in and support of education by showing practical results. If they do not know how, they should be taught. Supervisors are the trainers of teachers in service; consequently it devolves upon supervisors to teach teachers the reasonableness and the technic of showing the public tangible results.—Earl Hudelson.



They Can't Stand Unflushed . . .

Record No. 103

In 1908, 28 Clow Madden Automatics were installed. In 1922, there were no repairs to date (14 yrs.). They were then reinstalled in new school building and are now (1928) still going strong. *Location: School, Buffalo Center, Iowa.*

Unflushed closets are filthy, dangerous headquarters for filthy, dangerous insects, smells and germs. Clow Madden Automatics *never* stand unflushed.

Each time, *each time,* no matter how many times they are used . . . Clow Madden Automatics flush themselves. They're Automatic. They can't stand unflushed.

Each time, a deluge of water whirls away all waste. Each time, the bowl is purged of taint. And Clow bowls co-operate with water. They have no bumps or hollows to cause eddies.

CLOW MADDEN

Forty-Eight Styles, Heights and Types to Meet Your Requirements

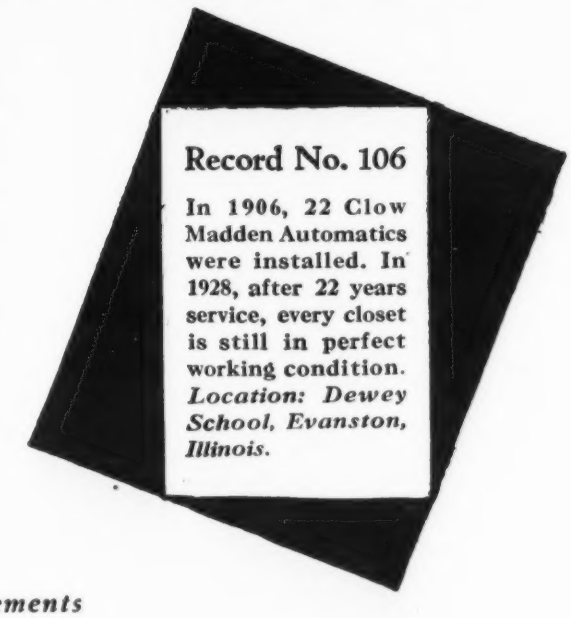


Probably for the Next 35 Years

Simple, sure, strong, describe the Clow Madden Valve (it has no by-passes, floats or temperament). It's sensible about water . . . never wastes it . . . never stints it.

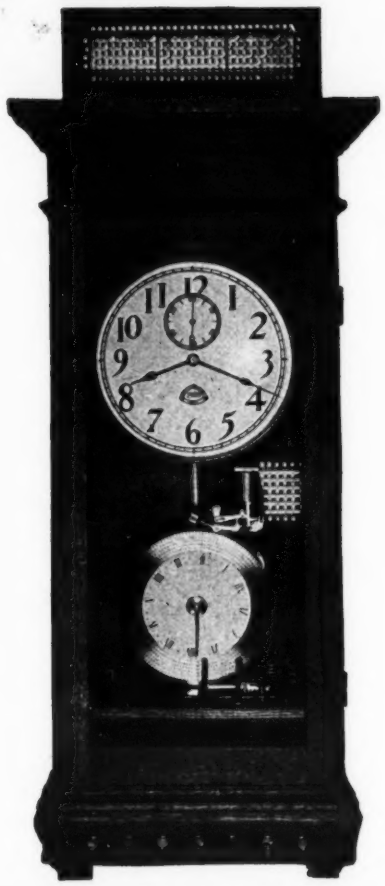
Sanitation follows Clow Madden Automatics — through thirty-five years and sometimes more. Water bills become easy to pay. Repair bills seldom happen. (Read Records No. 103 and No. 106.) Send for the Clow School Plumbing Booklet.

James B. Clow & Sons, 201-299 N. Talman Ave., Chicago



AUTOMATIC

Forty-Eight Styles, Heights and Types to Meet Your Requirements



FREE ENGINEERING SERVICE

CATALOGUE ON REQUEST

MANUFACTURERS OF
ELECTRIC TIME AND PROGRAM CLOCKS
FIRE-ALARM AND TELEPHONE SYSTEMS

Our Aim For Nearly Half Century
TO SUPPLY
Educational Institutions with the Best Equipment Obtainable

RECOGNIZED BY ELECTRICAL AND MECHANICAL ENGINEERS THROUGHOUT THE COUNTRY AS THE HIGHEST QUALITY, SIMPLEST AND MOST ECONOMICAL EQUIPMENT PRODUCED.

One Quality—One Price—One Policy

The Landis Engineering & Mfg. Co.
WAYNESBORO, PENNA.

(Concluded from Page 113)

required to make out papers the same as other candidates, and ballots are prepared the same as for the other names on the election list. Three members will be voted on this year, two next year, and two more the year following. All members are elected for terms of three years.

—Hazel Park, Mich. A new effort to compel teachers to wear smocks has been begun. Another contract provision to be acted upon provides that teachers in the schools shall reside in Hazel Park. Supt. Thomas Davis has sided with the teachers in their war on the smocks.

—Oklahoma City, Okla. The school board has ruled that no teacher may strike or slap a child on the face, neck, or head. No child may be punished in the presence of the class. Written reports of all whippings and their cause must be filed with the board of education.

—South Haven, Mich. The school board has adopted new tuition rates for nonresident pupils. The new rates, which will be effective September 1, are as follows: Grades, kindergarten to sixth, inclusive, $50 per year; grades seven to eight, $75 per year; grades nine to twelve, inclusive, $90 per year.

—A controversy has arisen in the Terre Haute, Ind., board of education over finances. Mrs. Rudolph Acher, a member, prepared a statement showing that the expenses for 1928 would run $70,000 higher than 1927. When Homer Zenor, another member, saw Mrs. Acher hand the statement to a newspaper reporter, he snatched the same out of the reporter's hands and tore it into small bits. He claimed that the statement would place the board in a false light before the public. Mrs. Acher contended she was determined to retrench the school costs.

—La Crosse, Wis. The school board has been asked to approve a suggestion that a juvenile police patrol be organized in the city schools. The schoolboy patrol system, it is pointed out, has been successfully introduced in St. Paul, Kenosha, Duluth, and many cities in the east. The plan gives added protection to school children, and trains the automobile driver in responsibility in relation to pedestrian traffic.

—Cleveland, Ohio. The local builders' exchange is cooperating with the board of education in plans for obtaining a favorable vote upon the construction of a new administration building for the education department. It is planned to submit a bond issue to the voters at the November election.

—Los Angeles, Calif. The local board of education has recently renewed its demand upon the city authorities to have the so-called mechanical vendor or slot machine for cigarets legislated out of existence. It is pointed out that the slot machine gives out cigarets to anyone who inserts a five-cent or ten-cent piece.

—Mr. John J. Brown, Mr. William A. Hough, and Mr. Phillip Zoercher, constituting the state board of tax commissioners of Indiana, have been named as defendants in a suit begun by William Rooker, as attorney for the school board of Indianapolis. The suit has been begun to test the authority of the tax board in refusing to authorize a $600,000 bond issue for grade-school additions. The complaint contends that the legislature in defining the power of the state board, did not mention the school city of Indianapolis, and any authority which the tax board attempts to assert is in defiance of the constitution.

—Syracuse, N. Y. Supt. G. Carl Alverson has presented a plan to the school board, which calls for a reorganization of the education department in the direction of increased efficiency.

Under the plan, the clerk of the board is to be the link between the superintendent and the board. The deputy superintendent or business manager is to have charge of the work of the superintendent of buildings, and the supervision of the school inspectors, mechanics, and janitors.

The attendance division, vocational guidance, kindergarten, art, and music divisions are to be linked with the superintendent. The business manager is to have charge of the office work, including the supervision of the bookkeepers, clerks, storekeeper, and delivery work.

Working under the superintendent will be the office secretary, the assistant superintendents, the departments of research, homemaking, penmanship and physical education, as well as the employment of special teachers, school physicians, and nurses.

—Lexington, Mass. The city council has approved a recommendation of Mr. H. S. O. Nichols, chairman of the school committee, providing for the appointment of a committee to study plans for increased school accommodations.

—Haverhill, Mass. The school board has adopted a budget of $604,975 for the school year 1928-29.

—Seguin, Tex. A high-school building is under construction at the present time. The building which will be erected at a cost of $100,000, will be completed in September, 1928. The old high school will be used for elementary pupils. In addition to the high school, the town has two ward schools, one for white children, and one for the children of Mexican parents.

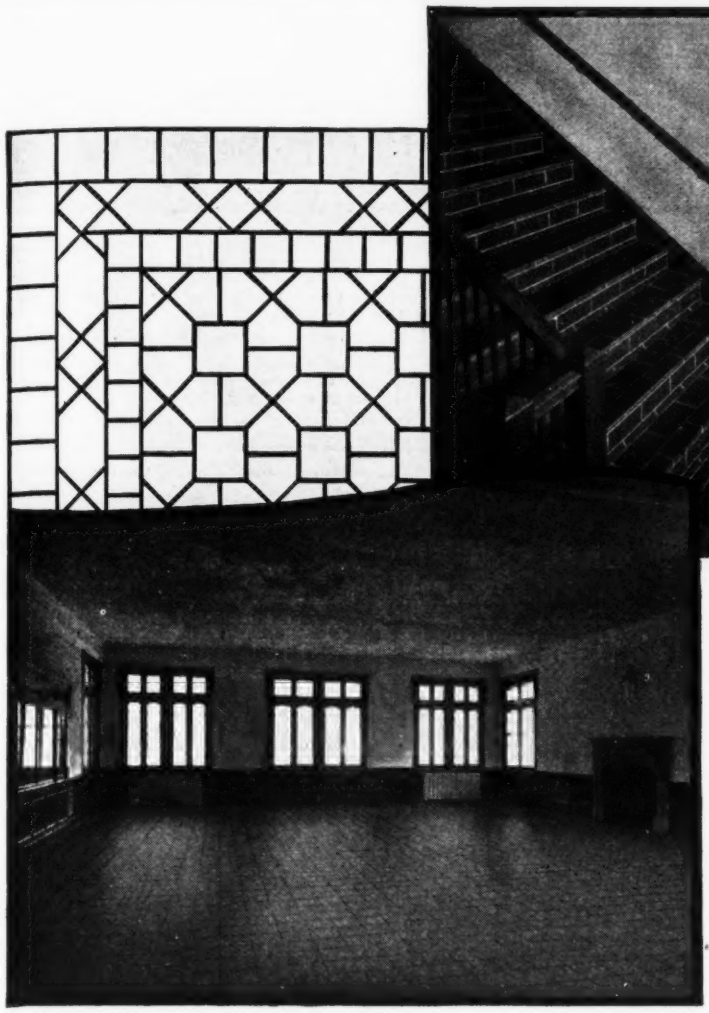
—St. Louis, Mo. The school board has established a definite policy with respect to tornado insurance on its various school buildings. In lieu of insuring all of its buildings, the sum of $20,000 is to be set aside each year out of any unappropriated balance in the general fund and added to the permanent insurance fund. In addition, it has been ordered that all interest accruing on cash balances in the bank and all income from securities now held, or hereafter to be held in the permanent insurance fund, be credited to the permanent insurance fund instead of the general fund as was formerly the case.

The recent tornado which visited St. Louis in September, 1927, caused damage to certain school buildings, which resulted in an expenditure for repairs of approximately $93,000,000.

—Hillsboro, Tex. The school board recently completed a $60,000 improvement program for the schools of the city.

—Baltimore, Md. Local architects have been employed for five school projects in the city, to cost about $1,000,000, for which provision was made in a $10,000,000 school loan approved last May. Mr. Herbert G. Jory will prepare plans for a sixteen- to eighteen-room addition to the Highlandtown School, to cost $300,000; Messrs. Flournoy & Flournoy for a twelve-room addition to the Glenmont School, to cost $250,000; George N. Mackenzie for a twelve- to sixteen-room addition to Brehm's Lane School, to cost $175,000, and Palmer, Willis & Lambdin, for an addition to the Roland Park School.

—Kansas City, Mo. The school committee of the citizens' league council recently listened to a condemnation of the policies of the board of education. The committee adopted a report urging the passage of the $5,000,000 school bond issue at the hands of the voters. The committee which had been appointed to make a study of the cost of education, reported that in its opinion, the city is not spending too much for school purposes, and urged that the bond issue be approved by the voters at the school election.



Main Corridor, Sussex School A, Shaker Heights, Ohio. Chas. W. Bates, Architect. Schenectady Tile Co., Tile Contractors, Schenectady, N. Y.



Stairway, Mayfield Central Grade and Junior High School, Mayfield Heights, Cleveland. Fulton and Taylor, Architects, Cleveland. Wadsworth-Addison, Tile Contractors, Cleveland.



Main Corridor, Calumet Senior High School, Chicago, Ill. Romany Tiles installed by the North Shore Tile Co., Chicago.

The Beauty of Romany Tiles Outlasts the School Building

No portion of a school building receives quite as hard service as the floors and wainscots of corridors, stairways and lavatories. The steady grind of hundreds of feet, the scuffing, bumping and thumping which are a natural outlet of the energy of the youngsters, exact heavy toll from any less "boyproof" floor and wall material than Romany Tiles. But with Romany Tiles on stairways, in the corridors and the lavatories, you are assured of a permanently fresh, colorful and beautiful building — one which will prove attractive to generation after generation of American youngsters.



Wherever ***low*** *initial cost, beauty, unquestioned durability, extremely low cleaning expense and sanitation are equally important factors, Romany Tiles stand alone among desirable floor and wall surfacing materials.*



UNITED STATES QUARRY TILE COMPANY
PARKERSBURG, WEST VIRGINIA
Member, Associated Tile Manufacturers

ROMANY TILES

PROFESSIONAL SCHOOL SERVICE DIRECTORY

LESLIE E. WHITE
LANDSCAPE ARCHITECT
Playground Engineering and the Landscape treatment of Institutions and School Grounds.
Specializing in the development of school grounds in the Gulf States.
Lafayette, Louisiana

CHARLES FOSTER
Member A. S. M. E.—A. S. H. & V. E.
CONSULTING ENGINEER
Heating, Ventilating, Plumbing and Lighting for Schools.
Professional Service for Architects.
512 Sellwood Bldg., Duluth, Minn.

Established 1898
JOHN NUVEEN & CO.
Municipal, County & School Bonds
We have assisted in the financing of schools in every part of the country during the last 29 years. Information and advice gladly furnished without obligation.
First National Bank Bldg. CHICAGO

SCHOOL FINANCING
For the past fifteen years we have specialized in the purchase of School Bonds.
We furnish blank bonds, prepare proceedings and attend to all legal details relating to proposed bond issues.
If you contemplate New School Financing Write us Today
THE HANCHETT BOND CO.
9 So. LaSalle St. Chicago, Ill.

THE GEORGE P. LITTLE COMPANY
1227 Prospect Avenue Cleveland
Free Press Building Detroit
CONSULTANTS ON ACOUSTICAL PROBLEMS

POWER PLANTS
HEATING & VENTILATION
ELECTRICAL & SANITARY WORK
SPRAGUE & SLOCUM
50 East 41st Street, New York City
25 Years Successful Practice in the Art of Ventilation

A. M. ALLEN & COMPANY
Architects & Engineers
7016 Euclid Ave. Cleveland, Ohio
Telephone: Penna 3140

ALFRED KELLOGG
Consultant to School Departments
Pertaining to Central Plants, Heating and Ventilation, Illumination and Sanitation. Plans when desired.
89 Franklin Street, Boston Massachusetts.

Mechanical and Electrical Equipment of Buildings
CHARLES A. MANN
CONSULTING ENGINEER
32 W. RANDOLPH ST. CHICAGO

PERSONAL NEWS OF SCHOOL OFFICIALS

—Dr. H. A. Boysen retired as a member of the school board of Waterloo, Iowa, on March 19, after a service of fifteen consecutive years. Dr. Boysen was elected a member of the board in 1913, and was subsequently reelected for each consecutive term.

During Dr. Boysen's service on the school board, six school buildings were erected, including the high school. A high school, costing a million dollars, was erected with the proceeds of a bond issue of $350,000. Dr. Boysen also had a part in the enlargement of the course of study to include manual arts, domestic arts, and commercial subjects.

—Dr. Ernest E. Cole, counsel to the state education department of New York state, has recently been appointed as deputy commissioner of education to succeed the late Dr. Gilbert.

Dr. Cole has been closely connected with educational matters in the state for a number of years. For some time he was chairman of the senate committee on public education in the passage of legislation of benefit to the state school system.

Dr. Cole has been serving since July, 1926, as counsel to the state education department. He will continue in that capacity with the added duties of deputy commissioner, his title being deputy commissioner and counsel.

—Dr. Archibald C. McLachlan, who retired on February 1, as principal of the Jamaica Training School, Jamaica, New York City, was the guest of honor at a testimonial luncheon tendered him by his former students and friends in the Hotel Pennsylvania, New York City. Eight hundred persons were present to pay tribute to the distinguished guest.

Dr. McLachlan's retirement comes after a service in the educational field dating from 1881, when he became principal of the Groton Union School. He was superintendent of schools at Seneca Falls from 1883 to 1892, and from 1892 to 1897 he served as conductor of teachers' institutes.

—Mr. R. M. Sealey, executive secretary of the Florida Education Association and editor of the *Journal* of the Florida Association, died suddenly in Washington, D. C., on February 21, while en route to the Department of Superintendence meeting at Boston.

—Prof. A. S. Barr, of the department of education, University of Wisconsin, has been employed by the board of education, Superior, Wis., as technical adviser in supervision and research, for the second semester of the school year, 1927-28.

—Mr. Galen Jones of Port Arthur, Tex., has been appointed as principal of the high school at Reading, Pa. During the summer, Mr. Jones will fill the office of professor of secondary education at the University of Missouri.

—A department of educational research has been established at Reading, Pa., with the appointment of Mr. Thomas H. Ford as director. Mr. Ford will assume his new duties in July.

—Dr. B. R. Buckingham, director of research at the Ohio State University, has accepted a position with Ginn & Company. Dr. Buckingham will also teach in the Harvard University School of Education.

—Charles A. Lee, state superintendent of public instruction of Missouri, has announced his candidacy for the office of governor of the state. Mr. Lee was elected state superintendent in 1922, and previously had filled the superintendency at Butler.

—Mr. S. M. Andrews of Walsenburg, Colo., has been elected president of the Colorado Education Association. He succeeds C. E. Brown.



CARL G. CADDEY,
Secretary and Business Manager, Board of Education, Tacoma, Wash.

Mr. Caddey, who was recently elected as secretary and business manager of the board of education at Tacoma, Wash., was formerly city comptroller of Tacoma. Mr. Caddey succeeds Mr. Alfred Lister, who retired on July 1, 1927. His deep interest in the public schools and his desire for greater opportunity of service prompted Mr. Caddey to leave the comptroller's office and enter public-school work.

Mr. Caddey is a native of Cumberland, Wis., and has had seventeen years' experience in office work, business accounting, and public finance. As city comptroller in Tacoma, Mr. Caddey was the chief auditing and accounting officer of the city in the operation of large public utilities, as well as ordinary governmental functions.

Mr. Lister, the predecessor of Mr. Caddey in the office of business manager, similarly relinquished the office of city comptroller about 22 years ago, to accept the office of secretary of the school district of Tacoma.

—Mr. A. C. Hamilton has been elected superintendent of schools at Nyack, N. Y., to succeed H. J. Wightman, who has resigned.

—Mr. E. W. Spry of Oswego, N. Y., has been elected superintendent of schools at LeRoy, to succeed Mr. E. B. Taylor.

—Dr. I. N. Madsen, director of tests and measurements in the Lewiston State Normal School of Montana, will conduct courses in administration, mental measurements, and problems in elementary education at the summer session of the University of Montana.

—Supt. E. H. Homberger of Woodward, Okla., has been reelected for a three-year term.

—Mr. F. B. Wood has been elected president of the school board at Tecumseh, Mich., to succeed the late J. H. Smith. Mr. W. L. Jones has been elected as a member of the board.

—Mrs. Charles C. Mook has been elected president of the school board at Metuchen, N. J. Other officers elected were Mr. J. Malcolm Crowell, vice-president. Mr. O. R. Hatfield, Mr. E. J. Koster, and Mr. John J. Dietz were also elected as members.

—Mr. C. C. Clark has been reelected as president of the school board of Burlington, Iowa. other officers elected were Mr. J. L. Gafford, vice-president, and Mr. J. E. Jamison, treasurer.

—Mr. Henry D. Bercaw has been elected president of the school board at Canton, Ohio, to succeed Mr. H. A. Staley, who has resigned.

—Mr. Charles E. Gilbert has been reelected as secretary of the board of education, at a substantial increase in salary.

—Mr. Ernest Withall, formerly purchasing agent for the Chicago board of education, has been elected as business manager. Mr. John E. Byrnes will continue as assistant business manager and director of personnel.

—Mr. G. F. Cotterill and Dr. C. W. Sharples have been reelected as members of the school board at Seattle, Wash.

—Mr. J. O. Broleen has been elected president of the school board at Sioux City, Iowa.

—Dr. H. B. Gratiot has been elected president of the school board at Dubuque, Iowa. Mr. M. J. Glenn has been elected vice-president. The three new members are Milton Glenn, Charles Gelsky, and Dr. James Alderson.

—Mr. J. R. Howard has been elected president of the East Waterloo, Iowa, school board. He succeeds Dr. H. A. Boysen.

—Dr. E. L. Rohlf has been reelected president of the west-side board of Waterloo, Iowa.

—Mrs. Kate Simpson and Mr. R. L. Campbell have been reelected as members of the school board at Spokane, Wash.,

—Mr. S. B. Stocking has been elected as a member of the school board at Tacoma, Wash.

Can You Tell the Difference

between a cheap fence and a good one?

FENCES that look much alike 50 feet away are often found to be radically different on close inspection. The practised eye takes in these differences at a glance. The high-grade fence has full-size posts and wire, posts set at proper depth in solid concrete, gradually formed links, uniform barbing, secure bracing and trussing, perfect alignment — many identifying marks of substantial construction.

The cheap fence, likewise is easily recognized. It betrays its weaknesses the day of its erection and proves its false economy by an untimely end. There's only one way to make a real saving on fence — buy on the basis of per-year cost.

Call a Cyclone Representative

Make a study of fence and learn the difference between a cheap fence and a good one. Consult a Cyclone-trained representative. He knows fence from every angle. He has helped to manufacture it in Cyclone plants, and has helped to erect it on the job. He comes equipped with long experience and a fund of knowledge that will enable him to grasp your fence problems quickly and advise you intelligently.

Without obligation, write, phone or wire nearest offices and have a Cyclone representative call.

Cyclone Fence

REG. U.S. PAT. OFF.

CYCLONE FENCE COMPANY *Main offices: Waukegan, Ill.*
Works and Offices: North Chicago, Ill., Cleveland, Ohio, Newark, N. J., Fort Worth, Texas
Pacific Coast Distributors: Standard Fence Co., Oakland, Calif., Northwest Fence & Wire Works, Portland, Oregon.
Direct Factory Branches in all Principal Cities.

Fencing for residences, estates, schools, playgrounds, factories, property of all kinds.



The Mark of Dependable Property Protection

© C. F. Co., 1928

PERSONAL NEWS OF SUPERINTENDENTS

MR. GOSLING GOES TO AKRON, OHIO

Mr. Thomas W. Gosling of Madison, Wis., has been unanimously elected superintendent of schools at Akron, Ohio, to succeed George McCord. Mr. Gosling who was appointed from a large list of applicants, will be given a contract carrying a definite term and a salary of $10,000 per year

Mr. Gosling is a native of Ohio and received his common-school education in the schools of Cincinnati. He holds the degree of doctor of philosophy given by the University of Cincinnati. After his graduation, Mr. Gosling taught in the schools of Cincinnati, being from time to time teacher in the high school, principal in an elementary school, and later principal in a high school. He was appointed an inspector in the state education department of Wisconsin, and a few years later resigned to become city superintendent of schools at Madison, where he has remained for the last seven years.

Mr. Gosling is a leader in the work of the National Education Association and has acted as chairman of many of its special committees. He is a frequent contributor to the leading educational periodicals and is the author of numerous articles on administrative topics.

PERSONAL NEWS OF SUPERINTENDENTS

—Supt. W. S. Young of Springfield, Tenn., has been reelected for a three-year term, beginning with September, 1928.

—H. R. Goold of Renton, Wash., has been elected superintendent of schools at Eugene, Oreg., at a salary of $4,500 and $5,000 for the second year.

—The school board of Royal Oak township, Mich., has patched up its differences with Supt. Thomas F. Davis. The resolution adopted at a previous meeting requesting his resignation has been withdrawn.

—L. H. Spilman, president of the board of education of Knoxville, Tenn., announced himself in favor of retaining Supt. Homer Shepherd for another year.

—Supt. E. S. Briggs of Okmulgee, Okla., has been given a three-year contract, with a substantial increase in salary. Supt. Briggs came to Okmulgee in 1919 and has been superintendent of the school system for the last three years.

—The board of trustees of East Bernard, Tex., has reelected Mr. L. C. McDonald as superintendent of schools for a two-year term, with an increase of $300 in salary. Mr. McDonald has served East Bernard as superintendent for the last four years.

—Supt. M. R. McDaniel of Oak Park, Ill., has been given a life membership in the National Education Association.

—Mr. C. E. Toole of Lehighton, Pa., has been elected superintendent of schools at Pottsville, to succeed G. H. Weiss who has resigned. Mr. Toole will receive a salary of $6,000 per year.

—Mr. John K. Bolen, formerly principal of Public School 75, Brooklyn, N. Y., has been elected as district superintendent to succeed John E. Wade, who has become an associate superintendent.

—Supt. F. L. Mahannah of Cedar Falls, Iowa, has been reelected for a two-year term, with a substantial increase in salary.

—Supt. J. E. Smith of Webster City, Iowa, has been reelected for a third term, with an increase in salary.

—Supt. D. A. Stephenson of Nampa, Idaho, has been reelected for a three-year term.

—Mr. Frank H. Thomas of Jerome, Idaho, has been elected superintendent of schools at Gooding.

—Dr. N. D. Showalter, former president of the Cheney Normal School, Cheney, Wash., has become a candidate for the Republican nomination for state superintendent of public instruction.

—Supt. W. J. Chisholm of Nashville, Ga., has been reelected for a fourth consecutive term.

—Mr. J. E. McMahan has been elected superintendent of schools at Wellsburg, W. Va., to succeed S. E. Bucher.

—Supt. R. E. Ballard of Fonda, Iowa, has been reelected for the coming year, with an increase in salary.

—Supt. M. C. Bevens of Madill, Okla., has been reelected for a second term.

—Supt. C. H. Moore of Clarksville, Tenn., has been reelected for a term of three years, with an increase in salary.

—Supt. F. A. Miller of Grant, Mich., has been reelected for a sixth term.

—Supt. E. P. Smith of Martin, Tenn., has been reelected for a sixteenth consecutive term.

—Mr. Charles Grothaus of Belle Center, Ohio, has been elected superintendent of schools at Kanton for a two-year term.

—Mr. John A. Linebarger, superintendent of schools at Rockville, Ind., has become a candidate for the Democratic nomination for the office of state superintendent of public instruction.

—Mr. Albert Free has been elected superintendent of schools at Spencer, Ind., to succeed F. E. Bourne who has resigned.

—Supt. H. P. Shepherd of Knoxville, Tenn., has been reelected for a period of three years.

—The office of assistant superintendent of schools at Bridgeport, Conn., which has been filled by Mr. Worcester Warren, is being discontinued due to a lack of funds.

—Supt. L. Paul Miller of Adrian, Mo., has been reelected for another year.

—Mr. Charles G. Hetherington of Elmira, N. Y., has been elected superintendent of schools at Penn Yan, to succeed W. E. DeMelt who has resigned to take up university work.

—Supt. J. N. Cunningham of Carroll, Iowa, has been reelected for a term of two years.

—Supt. W. W. Borden of South Bend, Ind., who has been reelected for a three-year term, beginning with August, 1928, will enter upon his third term as superintendent of schools. During Mr. Borden's term of office, the school system has completed an extensive building program, the schools have been reorganized on the six-three-three plan, and the platoon system has been established.

—Supt. Edgar H. Grout of East Bridgewater, Mass., will retire on September 1, with the completion of 25 years of service as superintendent of schools. Mr. Grout has been engaged in teaching for a period of over 40 years, 35 years of that time being spent in the schools of Massachusetts. He came to East Bridgewater in 1903 as superintendent of a union school district. Later the districts separated and Mr. Grout became superintendent of the schools of East Bridgewater.

—Mr. W. F. Kruschke of Kewaunee, Wis., has been elected superintendent of schools at Rhinelander.

—Mr. E. J. Knight of Lamar, Colo., has been elected superintendent of schools at Littleton.

—Mr. R. E. Cook of Tacoma, Wash., has been elected superintendent of schools at Everett.

—Supt. E. L. Bolton of Concrete, Wash., has been reelected for a two-year term.

—Supt. W. A. Andrews of Buffalo, Minn., has been reelected for a fifth consecutive term.

—Supt. C. W. Cruikshank of Mt. Pleasant, Iowa, has been reelected for another year.

—Supt. J. H. Shipton of Marengo, Iowa, has been reelected for another year.

—Supt. William Harris of Decatur, Ill., has been reelected for a three-year term.

—Mr. Harry E. Rush has been elected superintendent of schools at Mancelona, Mich., to succeed L. E. Johnston.

—Mr. Hugh Houser has been elected superintendent of school at Mifflingburg, Pa.

—Supt. J. W. Thalman of Waukegan, Ill., has been reelected as head of the Waukegan Township High School for the next year.

—Supt. H. L. Barker of Bangor, Mich., has been reelected for a two-year period.

—Mr. W. G. Ham has been elected superintendent of schools at Huntsville, Ala., to succeed F. W. Williams.

—Supt. Benjamin Klager of Manistee, Mich., has been reelected for another year.

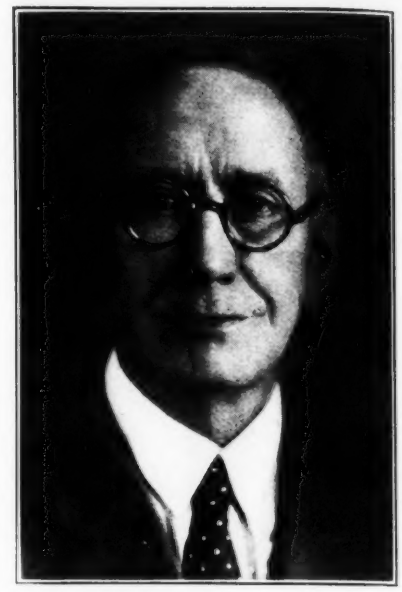
—Mr. George H. Curtis of Alpena, Mich., has been unanimously reelected for the ensuing year.

—Mr. A. V. Hicks has been elected superintendent of schools at Sioux Center, Iowa, to succeed P. J. Seegers, who has resigned.

—Supt. F. H. Gilliland of Sibley, Iowa, has been reelected for the ensuing year, with a substantial increase in salary.

—Miss Mary C. Mellyn has been elected assistant superintendent of schools at Boston, Mass., for a term of six years, beginning with September 1, 1928. Miss Mellyn is a recognized educator and pioneer in the development of education in recent years. Her training and experience in the Boston schools was obtained through the ranks of the classroom teacher, her appointment to the principalship, then to the supervisor of the department of practice and training, and later to the office of assistant superintendent in 1916. Miss Mellyn's exceptional qualifications for the position, and her warm, personal sympathy and sense of justice have endeared her to the teachers, and particularly to the young teachers who have been given the benefit of her long experience and great personal knowledge of teaching.

—Supt. J. F. Saegert of Seguin, Texas, has been reelected for the school year 1928-29. Mr. Saegert has completed thirteen years of service in the schools, five as principal and eight as superintendent.



MR. J. D. RUTLEDGE,
President, Board of Education,
Johnstown, Pa.

Mr. Rutledge, who has been a member of the board for the last sixteen years, was one of the first board of nine members, to be elected at large under the state school code of Pennsylvania. In December, 1915, Mr. Rutledge was elected president of the board, and has been reelected every year since that time. He was reelected this year to serve for the year 1928.

During Mr. Rutledge's term of office, two junior high schools, a senior high school, four grade schools, and an addition have been erected. The school system has been reorganized on broad lines.

—Mr. Roy R. Roudebush of French Lick, Ind., has recently been appointed as assistant state superintendent of schools of Indiana, to succeed F. T. Gladden, whose resignation became effective on April 30.

Mr. Roudebush is a former assistant state superintendent, having succeeded to that position when George Spencer of Tipton resigned during the term of Superintendent Sherwood. From 1914 to 1925 he served in a number of superintendencies in Indiana. In 1926 he was appointed assistant state superintendent, serving until the expiration of the term of Dr. Sherwood in 1927.

Mr. Roudebush attended Valparaiso University following his graduation from high school. In 1914 he received his A.B. degree from Indiana University, and later his A.M. degree from the same institution. He is a frequent contributor to the educational periodicals.

—Supt. S. W. Christian of Belle Plaine, Iowa, has been reelected, with a substantial increase in salary.

—Mr. C. M. Olson of Scarvilie, Iowa, has been elected superintendent of schools at Boyd, Minn.

—Supt. R. C. Hall of Little Rock, Ark., has been reelected for a three-year term. Supt. Hall has completed nearly twenty years of service at Little Rock.

—Mr. Robert Koopman, formerly superintendent of schools at Vicksburg, Mich., has been appointed as principal of the Tappan Junior High School at Ann Arbor.

—Mr. W. R. Skillman, superintendent of schools at Kane, Pa., has died at the age of 37 years.

—Mr. A. E. Gower has been reelected as superintendent of schools of Plain City, Ohio, for a fifth consecutive term.

—Supt. G. W. Greene of Anacortes, Wash., has been reelected for another one-year term.

—Mr. Emery Doane of Parma, Idaho, has been elected superintendent of schools at Jerome.

—Mr. Clarence Zimmerman of Spokane, Wash., has been elected superintendent of schools at Wilbur, to succeed W. J. Jones.

—Supt. F. P. Baird of Caldwell, Idaho, has been reelected for another year.

—Mr. W. S. Wynstra of Hartline, Wash., has been elected superintendent of schools at Oakesdale.

—Supt. K. J. Smith of Napavine, Wash., has been reelected for another two-year term.

—Mr. L. A. Wilcox of Clatskanie, Oreg., has been elected superintendent of schools at Lebanon.

—Supt. Elmer A. Quist of Bertha, Minn., has been reelected for another year.

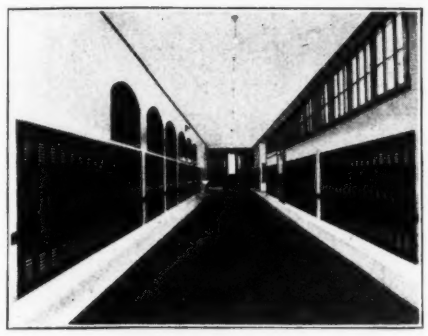
—Supt. S. G. Gilbertson of Breckenridge, Minn., has been reelected for another year.

—Supt. S. S. McNelly of Lancaster, Wis., has been reelected for another year.

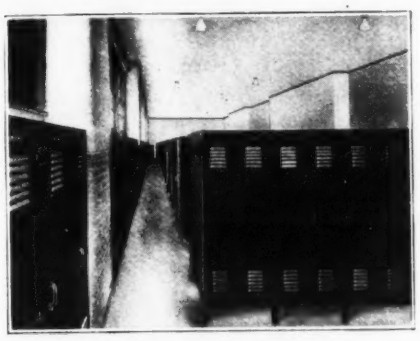
(Concluded on Page 122)

DURABILT STEEL LOCKERS

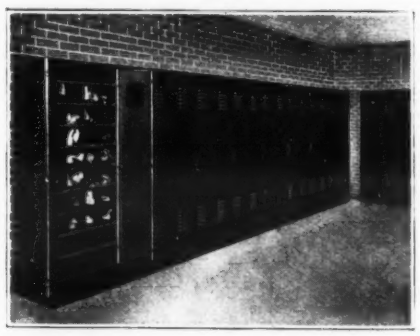
Quality Throughout And Moderately Priced



Single Tier Lockers
Recessed in Corridors



Single Tier Lockers
Free Standing on Legs



Double Door Gym Shoe Lockers
Single Row Arrangement



Box Lockers with Drawers for Tools
Manual Training Department

There is a big difference in Steel Lockers. The Durabilt line is distinctively one of Quality. Design, material, workmanship, and finish reflect our determination to excel. Simplicity, convenience of operation, dependability of latch, lock, and hinges, freedom from warp and sag—those are outstanding features that impress at first sight.

The accompanying illustrations display applications and uses of a few of the numerous styles of Durabilt Steel Lockers especially designed for schools.

Full length clothing lockers, either recessed in the walls, on concrete bases, or free standing on legs provide the maximum storage service.

Where full-length lockers are not desired, we recommend the use of Double Tier Lockers.

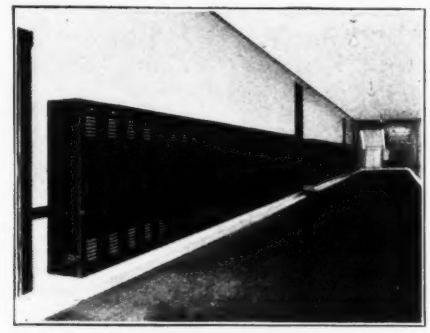
Box Lockers are not only adapted to efficient storage of gym suits but can also be used for books, sewing materials, culinary utensils, tools, aprons, and for storing all small articles.

For the efficient storage of shoes, etc., single tier lockers with pigeon-hole dividers are very economical and conserving of space. These lockers can be built either single tier or double tier and for recessing in the gym room walls or free standing as conditions would necessitate.

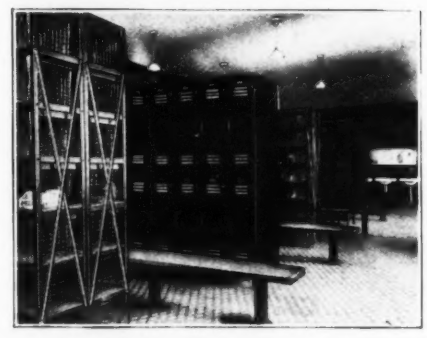
Durabilt Basket Racks and Trucks for gymnasiums, pools, etc., furnish well ventilated and compact storage of gym suits, togs, shoes, etc., at exceptionally low cost.

To appreciate the features of Durabilt Steel Lockers, you should see either a Durabilt installation or an actual full size sample. It is quite likely that there are several outstanding buildings in your locality that are Durabilt equipped. If not, then our nearest Sales Office will gladly demonstrate the superior features of Durabilt without obligating you in the least. A phone call will bring this service.

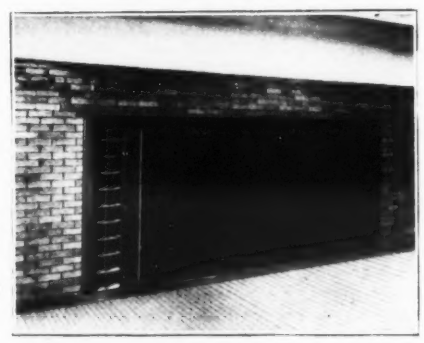
There are hundreds of additional illustrations and locker plans shown in our loose-leaf locker handbook. Special articles dealing comprehensively with school locker problems are included to assist Architects, Superintendents, Business Managers, and others interested in Steel Lockers. Ask us to send a copy without obligation to you in any way.



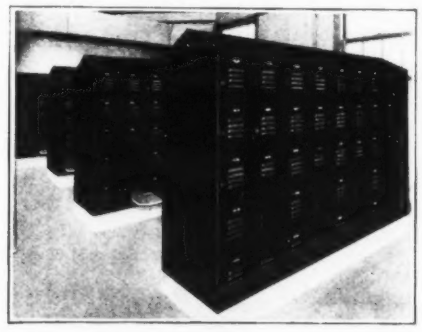
Single Tier Lockers
On Terrazzo Base in Corridor



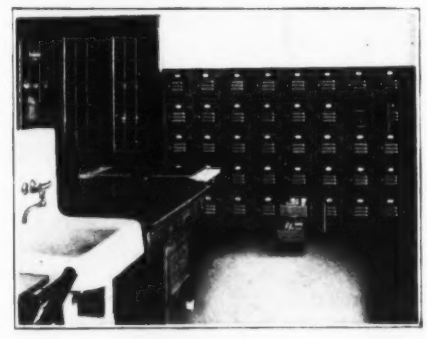
Double Tier Lockers and
Skeleton Type Gym Basket Racks



Gym Shoe Lockers
Recessed in Gymnasium Wall



Sloping Top Combination Gym Lockers
Double Row Arrangement



Box Lockers in
Domestic Science Department

"No better built than Durabilt"

DURABILT STEEL LOCKER CO.

400 ARNOLD AVE., **Sales Offices in all Principal Cities** **AURORA, ILL.**

THE HIT OF THE SEASON

Detroit Atlas Portable Bleacher Seats

The points of chief importance to consider in purchasing portable bleacher seats are:—

SAFETY - LONG LIFE - COMFORT.

FREEDOM FROM FREQUENT REPAIRS AND REPLACEMENTS.

LOWEST AVERAGE COST PER YEAR.

SPEED AND EASE OF ERECTING — DISMANTLING AND TRANSPORTING.

OCCUPYING LEAST SPACE IN STORAGE. MOST ATTRACTIVE IN APPEARANCE.

THE COMBINATION OF ALL THE ABOVE VITAL POINTS IS EXCLUSIVE WITH DETROIT ATLAS.



EVERY SECTION AN INDEPENDENT UNIT WITH 4-STRINGERS. STEEL AND MALLEABLE CASTINGS CARRY EVERY STRAIN.

DETROIT ATLAS PORTABLE BLEACHER SEAT CO.

520 FREE PRESS BLDG., DETROIT, MICH.

Detroit Atlas Portable Bleacher Seat Co.
520 Free Press Building - Detroit, Michigan

We are interested in Bleacher Seats. Please quote us on:

.....Sections .....Tiers High .....Seats

..... " ..... " ..... "

Signed.....

Address.....

(Concluded from Page 120)

—Mr. A. Boyd, formerly principal of the high school at Lamar, Colo., has been elected superintendent of schools. Mr. Boyd succeeds E. J. Knight, who goes to Littleton on August 1.

—Supt. Marion V. Williams of Carmen, Okla., has been reelected for another year.

—Mr. John F. Hummer, principal of the high school at Binghamton, N. Y., has been elected assistant superintendent in charge of high schools at Syracuse. Mr. Francis R. Shingle has been appointed assistant superintendent in charge of the first six grades.

—Mr. Galen Jones, principal of the high school at Port Arthur, Tex., has resigned to accept the principalship of the high school at Reading, Pa. Mr. R. A. Collins has been appointed to succeed Mr. Jones at Port Arthur.

—Supt. G. M. Sims of Port Arthur, Tex., who has been reelected for another term, has completed fourteen years of service in that office.

—Supt. H. E. Wrinkle of Duncan, Okla., has been reelected for the school year 1928-29, at an increase in salary.

—Mr. C. W. Fisk has been elected clerk of the school board at Ferndale, Wash.

—Mr. E. R. Voorhiss has been elected clerk of the school board at Morton, Wash., to succeed F. S. Thompson, who will give all of his time to the duties of superintendent.

—Mr. J. H. Secrest has been reelected as chairman of the school board at Longview, Wash. Mr. Leroy C. Eastman has been appointed as clerk of the board, to handle all secretarial and accounting work. Mr. Eastman succeeds Mr. S. N. Miller.

—At the school election held on April 7 at Port Arthur, Tex., Mr. H. O. Preston, president of the school board, was reelected to office. Other members reelected were Vice-President R. L. Rutan, Mr. Frank Hall, and Mr. W. H. Oldham, members.

—Mr. T. L. Head, formerly assistant superintendent of schools in Montgomery county, Ala., has been elected as assistant to Mr. W. R. Harrison, who has been elected superintendent of the city and county schools of Montgomery county.

—Carl A. Pfeiffer was reelected superintendent at Iron River, Mich., at a salary of $4,500.

—The school election at Roslyn, Wash., proved an endorsement of the policies carried out by Supt. F. E. Forbes.

—R. T. Allen was reelected superintendent at Cleveland, Tenn., for another three years. He has been at Cleveland seven years, coming there from Shelbyville, Tenn.

—Supt. Charles E. Varney of Rockland, Mass., has been unanimously reelected for another term.

—Mr. R. E. Baillette, formerly superintendent of schools at Sturgeon Bay, Wis., has become head of the Parker Teachers' Agency at Madison, succeeding the late W. N. Parker.

—Mr. R. E. Cooper, superintendent of the West Helena High School at West Helena, Ark., has resigned and will enter the University of Chicago next fall. Mr. Cooper will take up a special course leading to a master's degree.

—Supt. J. W. Sullivan of Spring Valley, Ill., has been reelected for another year, with a substantial increase in salary.

—Supt. J. S. Brown of Marion, Ky., has been reelected for another term.

—Supt. Gaylard W. Greene of Anocortes, Wash., has been reelected for another year, with an increase in salary. Supt. Greene has had seventeen years' experience as a schoolman and holds two degrees given by the University of Washington. He was superintendent of schools at Buckley for seven years previous to accepting the superintendency at Anacortes.

—Supt. Z. M. Walter of Hillsboro, Ohio, has been reelected for a three-year term, beginning with July, 1928.

—Charles Harris Congdon, for many years connected with the music department of Silver Burdett and Company, died March 23, at his home in Stroudburg, Pa. At the time of his death he was engaged in the publication of the Congdon Music Readers and allied books. He was the inventor of the Congdon chromatic pitch pipes.

—Supt. C. T. Cobb of Grandview, Texas, has been reelected for another year.

—Mr. W. G. Hamm has been elected superintendent of schools at Huntsville, Ala., to succeed Mr. F. W. Williams. Mr. Hamm was formerly principal of the high school.

—Mr. C. W. Evans, assistant superintendent of schools at Decatur, Ill., has been reelected for the next year. During the past year, Mr. Evans has done very effective work in supervising the physical phases of the school system and has worked out several economies in operation.

During the next year it is planned to give the assistant superintendent increased responsibilities. He will be given complete charge of the attendance department in connection with a program for stimulating regular attendance and reducing truancy to a minimum.

GEORGE P. VENABLE HONORED WITH DINNER IN RECOGNITION OF 44 YEARS' SERVICE AS A BOARD MEMBER

George P. Venable of Lexington, Mo., who attained the age of 90 on April 1, was honored with a surprise banquet given by the members of the Lexington board of education, and the members of the faculty of the public schools, at the new high school building on Thursday, April 5, in recognition of his 44 years of faithful service as a member of the board, and 41 years as treasurer. Mr. Venable was presented with a cane.

The banquet was served by the students in the home economics department, under the direction of Miss Mildred Tandy. Worth Bates, president of the school board, and L. H. Bell, superintendent of the Lexington public schools, delivered addresses.

Mr. Venable, who is actively engaged in the jewelry business at Lexington, Mo., began his 45th year of continuous service as a member, and his 42nd year as treasurer, of the board of education, in April of this year.

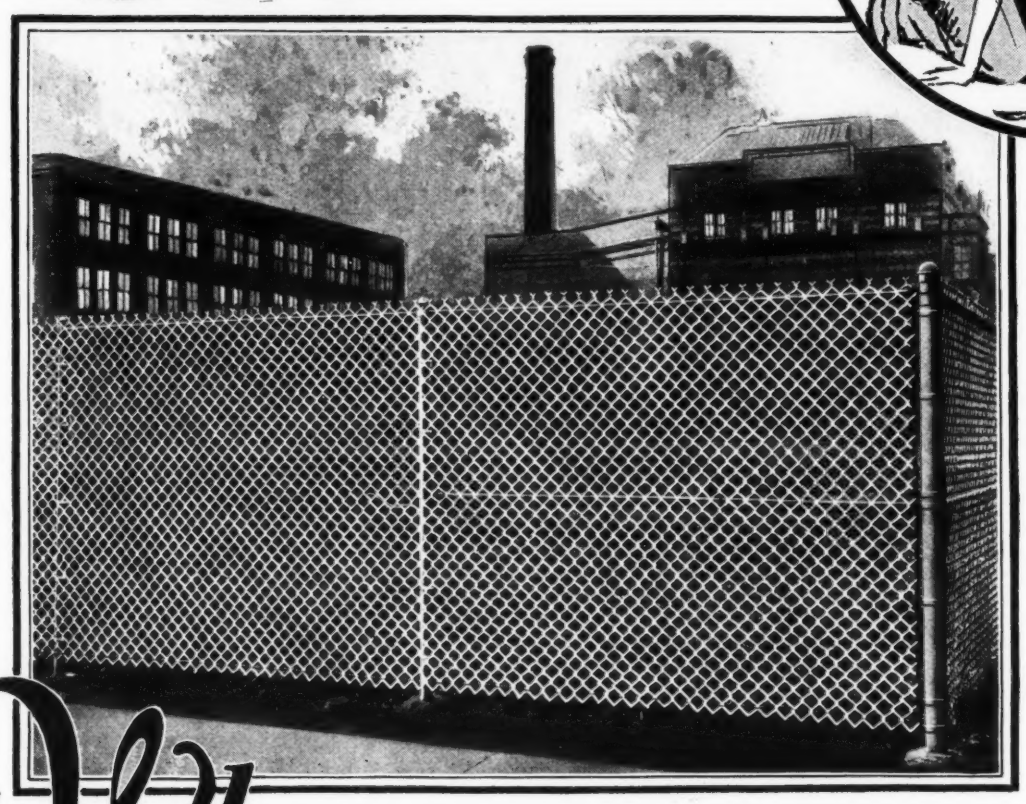
This remarkable tenure is attributed not only to the efficient manner in which he has discharged his duties as a board member, but, also, to the fact that he has been a progressive type of citizen. He has lost none of his youthful spirit and viewpoint, and retains his shrewdness of intellect. He repairs watches and clocks as expertly now as he has at any time during his 75 years at the watch bench, having entered the watch repairing business in 1853.

Always present at board meetings, accurate, and strictly honest in the handling of school accounts, frank in his dealings with patrons, teacher, and pupil, he continues to hold after these 44 years the confidence of the community.

Probably no other citizen has watched the growth and development of Lexington public schools with as keen an interest as Mr. Venable. When he assumed office in April, 1884, there was an unapproved high school taught by one teacher, and there were fourteen teachers in the elementary schools. At the present time 36 teachers are employed in the public schools.

"She lived! but—"





Children can play in safety behind rugged Page Chain Link Fence; long-lived too; all galvanized fittings—copper-bearing steel fabric galvanized after weaving.

Why should *you* wait this long before you bar the DANGER ZONE *with* PAGE FENCE

This School Board had considered fencing for years. But always they had waited another year—

Then one day it happened—a child intent on play—a mad dash into the road—a whirling, roaring mass of steel—a silent, crumpled form.

"She lived," said one of the Board the next day, "but we want that fence as fast as you can get it."

53 Service Plants Erect Fence Everywhere

There is a Page Fence Distributor near you who can give you PAGE Protection. Why wait? Write now for his name and address.

PAGE FENCE ASSOCIATION
215 N. Michigan Ave. Dept. 5J Chicago, Ill.

PAGE 53 *service plants erect fence everywhere* **FENCE**

America's first wire fence — since 1883

CHAIN LINK — ORNAMENTAL WROUGHT IRON



FoldeR-Way partition door hardware was specified by Robinson & Campeau, Grand Rapids architects, for the recently constructed Y. W. C. A. at Lansing, Mich. Four lounging rooms can be converted into one large gathering place. Space does double duty.

Save Space— by providing for convertible rooms

In a minute—with FoldeR-Way partition door hardware—you can change a large room into two, three, or any number of smaller ones. That's because they slide easily and noiselessly . . . a vast improvement over ordinary folding and sliding door equipment.

Leading architects and builders specify FoldeR-Way partition door hardware for lodge rooms, hotels, schools, Y. W. C. A.'s, or wherever it is necessary to provide a number of quiet rooms or one large one on a moment's notice.

FoldeR-Way equipment does not sag, stick or rattle. It meets all the fine requirements necessary in modern building equipment.

Write us for full information. Richards-Wilcox engineers will be glad to aid you in solving any doorway problem.

Richards-Wilcox Mfg. Co.

"A Hanger for any Door that Slides"

New York · · · **AURORA, ILLINOIS, U.S.A.** · · · Chicago

Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit

Montreal · RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT. · Winnipeg



DAYTON
Safety Ladder
(Patented)

—And he uses both hands

On the broad platform of the Dayton Safety Ladder, with high guard rails protecting him, the workman knows he is safe. He has both hands free for use in cleaning, painting, making repairs — does his work better and in less time. Plenty of room on the platform for two men and their tools.

With its wide leg-spread and steel-braced design, the Dayton cannot tip, collapse or wabble. Used by schools everywhere to prevent accidents and reduce maintenance costs. Made of durable aeroplane spruce, in sizes 3 to 16 feet. The price is moderate.



TYPE "B"
DAYTON LADDER
A popular priced general purpose safety ladder. Light, strong, easily carried. Sizes 4' 7" to 9' 9½".

Write Dept. ASBJ-5
for complete information

The Dayton Safety Ladder Co.
121-123 WEST THIRD STREET
CINCINNATI, OHIO

LAW AND LEGISLATION

—The state educational department of Wisconsin has issued an opinion to the effect that: "A school board cannot legally incur an expense for attorney's fees without authorization by the electors of the district expressed at a meeting properly called. In case the school board assumes the responsibility of taking some matter into court thereby incurring expense, the expense falls upon the members of the board individually. The district cannot be made responsible for the expense incurred."

—The state of California now has under consideration constitutional amendments through which the state superintendent of instruction shall be elected at the gubernatorial election, and shall serve as ex officio secretary of the state board of education. The county superintendent is to be elected and the legislature is empowered to provide county boards of education. Another amendment provides that: "The legislature shall provide for the appointment by the governor, with the advice and consent of two thirds of the senate, of ten qualified electors, of whom not more than six shall be of the same sex, who shall constitute the state board of education with such powers and duties, except as in this constitution provided, as shall be fixed by law. The terms of office shall be so fixed that two vacancies regularly occur on March first of each odd-numbered calender year. The governor shall fill vacancies, caused by death or resignation for any unexpired terms, subject to confirmation by the senate at its next regular session as provided for original appointments."

—The bond issue made by the school boards of Indiana cities are subject to approval by the state tax board. A $600,000 bond issue proprosed by the Indianapolis board of education is being questioned because the cost of the heating and ventilating apparatus is believed to be too high. It is held that the apparatus manufactured by C. C. Shipp practically amounts to a monopoly. The school board now plans to seek an order mandating the state tax board to approve the bond issue even though it refuses to carry out the tax board's order that competition shall be invited in connection with the heating and ventilating.

—New York's new revised compulsory school law is designed to place responsibility directly upon the parents to send their children to school and of seeing that they are in good health. In discussing the revised law Dir. George H. Chatfield, of the bureau of attendance of the New York city schools says: "The law has been modified with respect to attendance upon private schools. Heretofore children attending private schools frequently violated the law because private schools often have shorter days and shorter terms than public schools. The amendments provide that all schools, public and private, must teach the ten common-school subjects. If children attend upon instruction outside of public schools they must receive equivalent instruction but a shorter term, day or hour may be accepted.

—The appellate court of Chicago on a test case decided that the rule retiring teachers to "emeritus service" at the age of seventy was in violation of the Otis school law guaranteeing the teachers tenure of their positions. The Chicago board of education proposes to appeal the case to the supreme court. This action is being opposed by the teachers of Chicago.

—Frank P. Graves, state commissioner of education of New York has issued the opinion to the effect that a board of education has the statutary power to dismiss a teacher during the probationary period. Miss Minna M. Livingston, a Brooklyn teacher was demoted from a higher to a lower grade and denied permanent appointment. Hence the appeal for reinstatement which was denied.

—The school board of Iron River, Mich., has held several executive sessions recently which are held to be illegal by protesting citizens. A temporary injunction has been issued against Dr. E. C. Tyler, W. A. Sweet, Harold Lindahl, Joseph Carlson and A. D. McPherson, members of the board. The temporary injunction specifically requires that the board of education "absolutely and entirely desist and refrain from executing any contract or contracts with any teacher or teachers based in whole or in part on any of the meetings or proceedings hereinbefore mentioned or complained of until the further order of the court."

—The supreme court of Michigan has ruled that the act of 1925 providing aid to the poorer school districts is unconstitutional. As a result of the supreme court ruling, approximately $1,600,000, which has been held up by the auditor general for two years, will be apportioned to all counties in direct ratio to the number of children of school age rather than only to those counties where the number of children is out of proportion to the assessed valuation of the property and the ability of taxpayers to maintain schools. The court held that the constitution has laid down the tenet that the fund, which amounts to about $16,000,000 a year, must be distributed on the basis of the count of school children and no other. The decision evidently bars further primary-school legislation in the interests of the poorer districts unless a constitutional amendment is authorized by the voters.

—The supreme court of Wisconsin, in the case of Stanley Witkowski v. Edwin Gorka, has rendered a decision affirming the judgment of the circuit court of Milwaukee county in ordering that Witkowski be restored to membership on the Cudahy school board.

The incumbent, Stanley Witkowski, was elected a member of the board from the fourth ward of the city of Cudahy. Later he moved from the fourth ward to another ward of the city. The school board declared the office vacant and elected Edwin Gorka to succeed him. Court action was subsequently brought to restore Witkowski to the office.

The court in its decision, points out that the state law in specifying that "members shall be chosen from each ward," and "if the office is local his ceasing to be an inhabitant of the district, county, city, village, town, ward, or school district for which elected" makes a clear distinction between the words "from" and "for." It was held, therefore, that the office of member of the district board becomes vacant if the member ceases to be an inhabitant of the district and not of the ward.

RECENT DECISIONS

School Lands and Funds

A statute giving trustees of school districts discretionary power to segregate groups of pupils is valid (Ariz. civil code of 1913, par. 2750).—Burnside v. Douglas School Dist. No. 27 of Cochise county, 261 Pacific Reporter 629; Johnson v. Same, 261 Pacific Reporter 633, Ariz.

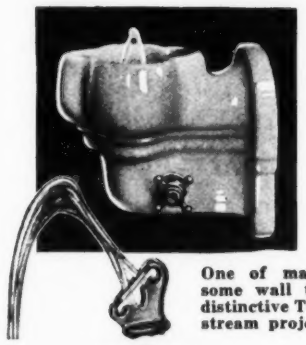
A statute giving school trustees discretion to segregate groups of pupils is held not repealed by the statutes relative to segregation of pupils of the African race (Ariz. civil code of 1913, par. 2750; Ariz. laws of 1921, c. 137, amending the Ariz. civil code of 1913, par. 2733, subd. 2.).—Burnside v. Douglas School Dist. No. 27 of Cochise county, 261 Pacific Reporter 629; Johnson v. Same, 261 Pacific Reporter 633, Ariz.

In Health—Safety they stand Supreme!



Union Endicott High,
Endicott, N. Y.
(T. I. Lacey & Son, Architects, Binghamton, N. Y.)

The side-stream type of drinking fountain is today recognized as the most hygienic! But not all side-stream types are practical. And certainly none are as safe, as sanitary, as Halsey Taylor Drinking Fountains. Here are fountains designed with ***practical*** features foremost in mind! And because of many exclusive patented features they are the safest for school installations, as school building authorities now know!



One of many handsome wall types and distinctive Taylor two-stream projector!

YOU will be interested in our new de luxe catalog, just off the press, designed especially to help school authorities and architects generally when planning drinking fountain installations. It contains a description and illustrations of our complete line. Write.

THE HALSEY W. TAYLOR CO., WARREN, O.

(Largest makers of drinking fountains exclusively)

HALSEY TAYLOR
DRINKING FOUNTAINS

A pupil of the African race has no constitutional or statutory right to receive "high-school" instruction in a particular building (Ariz. civil code of 1913, par. 2729).—Burnside v. Douglas School Dist. No. 27 of Cochise county, 261 Pacific Reporter 629; Johnson v. Same, 261 Pacific Reporter 633, Ariz.

School and School Districts

An order of the county board of education annexing the territory of a school district to a special school district, showing compliance with the law, is held valid on its face (Crawford & Moses' digest, § 8949).—Bird v. McCory Special School District, 300 Southwestern Reporter 370, Ark.

A county board of education may change the boundary lines of common-school districts and annex such districts to special school districts (Crawford & Moses' digest, § 8949).—Bird v. McCory Special School Dist., 300 Southwestern Reporte- 370, Ark.

School District Government

An action to remove members of a school board from office on the petition of private citizens may not be entertained (complete statutes of 1921, §§ 2394, 2395, 2407, 2413, 2414).—Alberty v. Parks, 261 Pacific Reporter 940, Okla.

A procedure to remove the members of a school board from office is provided by law for the removal of officers generally (Okla. complete statutes of 1921, §§ 2394, 2395, 2407, 2413, 2414).—Alberty v. Parks, 261 Pacific Reporter 940, Okla.

School District Property

The legislature may empower local school boards to construct dormitories for teachers, if reasonably necessary to the proper maintenance of schools (Tex. constitution, art. 7, §1).—Adams v. Miles, 300 Southwestern Reporter, 211 Tex. Civ. App.

Where, prior to a school board's repudiation of a contract, the school district made use of the architect's report and he performed the services requested, he could recover the reasonable value of the services.—Clark v. Conley School Dist. of Kern county, 261 Pacific Reporter, 723, Calif. App.

A school district could not refuse to pay for the accepted services of an architect on the ground of irregularity in the proceedings.—Clark v. Conley School Dist. of Kern county, 261 Pacific Reporter, 723, Calif. App.

Adoption and enforcement by school authorities of a rule within their discretion affords no basis for action unless the rule or enforcement is unreasonable, showing malice.—Englehart v. Serena, 300 Southwestern Reporter 268, Mo.

Furnishing free transportation to public-school children by a consolidated school district is "public governmental function" (Okla. constitution, art. 1, § 5; art. 11, §§ 2, 3; art. 13, §§ 1, 4; complete statutes of 1921, §§ 10377, 10465).—Consolidated School Dist. No. 1 of Tulsa County v. Wright, 261 Pacific Reporter 953, Okla.

School District Taxation

A proposed appropriation by school district trustees of surplus funds for the construction and acquisition of living quarters for teachers is held not in excess of the trustees' authority (Tex. constitution, art. 7, § 1; Tex. revised statutes of 1925, arts. 2748, 2749, 2827).—Adams v. Miles, 300 Southwestern Reporter 211, Tex. Civ. App.

A statute authorizing a bond issuance for building teachers' homes is not exclusive and does not prevent the school trustees' employment of surplus funds for that purpose (Tex. revised statutes of 1925, arts. 2748, 2749, 2797, 2837; Tex. constitution, art. 7, § 1).—Adams v. Miles, 300 Southwestern Reporter, 211, Tex, Civ. App.

THE MINNESOTA SCHOOL-BOARD CONVENTION

—The Minnesota school-board association met at Minneapolis. The program included some of the most prominent educators of the state, including Pres. Loftus D. Coffman of the University of Minnesota, J. M. McConnell, state superintendent, C. G. Schulz, secretary of the Minnesota Education association, and others. Pres. B. K. Savre of Glenwood presided.

W. H. Detamore of Mankato, superintendent of Blue Earth county, contended that the prevailing "school plant" was still an old-style, one-room schoolhouse, very meagerly equipped. He said in part:

"As a relief we occasionally see a new building, but when we stop to think that its use contemplates an indefinite continuance of the antiquated one-room, one-teacher system, a question arises as to whether it represents real progress."

Other speakers were Miss Anne Swensen and M. L. Jacobson of the state educational department, B. K. Savre, Glenwood, A. M. Hopeman, Moorhead, and H. D. Bloyer, Remer.

J. M. McConnell, state commissioner of education, urged moderation in the building of consolidated schools in the rural districts in a talk to the convention. "The consolidated school is not a remedy for all ills," he said. "When too much money is spent in building the school, the board is likely to find itself in the position of the man who has bought an expensive car on the installment plan and has no money left to buy gasoline. The board will have a fine school but no teaching staff or equipment."

L. H. Colson of Wadena, was unanimously elected president of the association yesterday. Other officers elected include H. D. Bloyer of Remer, vice-president; John E. Palmer, secretary-treasurer, and J. E. Meyers of Minneapolis, C. F. Battles of Bemidji, H. J. Molter of Renville, Alexander King of Coleraine, N. B. Hanson of Barnesville, J. B. Johnson of Cambridge, C. L. Blunt of Albert Lea, Mrs. Nels P. Radick of Fulda, and J. B. Krautkraemer of Jordan, directors.

—The school boards of Fulton county, Ill., met at Avon. The local school children provided a musical program. The principal speakers were John C. Harra and W. C. White of the state department. The latter discussed school budgets. An important address was also delivered by W. S Booth, state supervisor of elementary schools.

SCHOOL-BOARD CONVENTIONS

—The State School Directors' Association of Washington met at Olympia. The subject of school finance was discussed with considerable interest. Among the resolutions adopted is one which increased the minimum salary for county superintendents from $900 to $1,800. Officers reelected for another year are: O. M. Beatty, Walla Walla, president; George E. Canfield, Cle Elum, east side vice-president; Mrs. Iva W. Mann, Tacoma, west side vice-president; Mrs. Blanche Nagel, Olympia, secretary and treasurer. The new legislative committee is composed of: F. G. Ziegler, Port Blakely; Emma Horstman, Port Angeles; Frank S. Spinning, Puyallup; B. F. Kumler, Yakima; C. J. Christopher, Wenatchee. The executive committee is composed of the above named officers and include Mrs. Josephine Corliss, Preston; Chas. W. Cahill of Sharon, and Z. B. Shay of Willapa.

—The annual meeting of the rural school boards of Pike county, Mo., was held at Bowling Green.

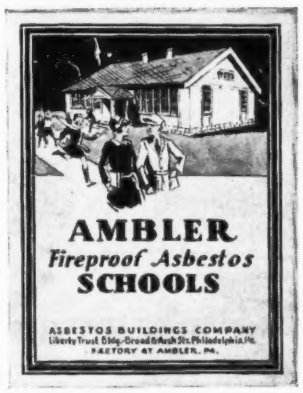
(Concluded on Page 128)

Rated as PERMANENT Buildings under Strictest State Codes—

If you were personally to examine an Ambler Schoolhouse, your own judgment would tell you that here is a structure good for years of service. And you would find your opinion backed by the classification of Ambler Schools as permanent buildings by the building codes of the country's most exacting states.

Ambler Fire Proof Asbestos Schools have a still further recommendation to you—the test of actual service all over the country and the enthusiastic approval of scores of practical educators.

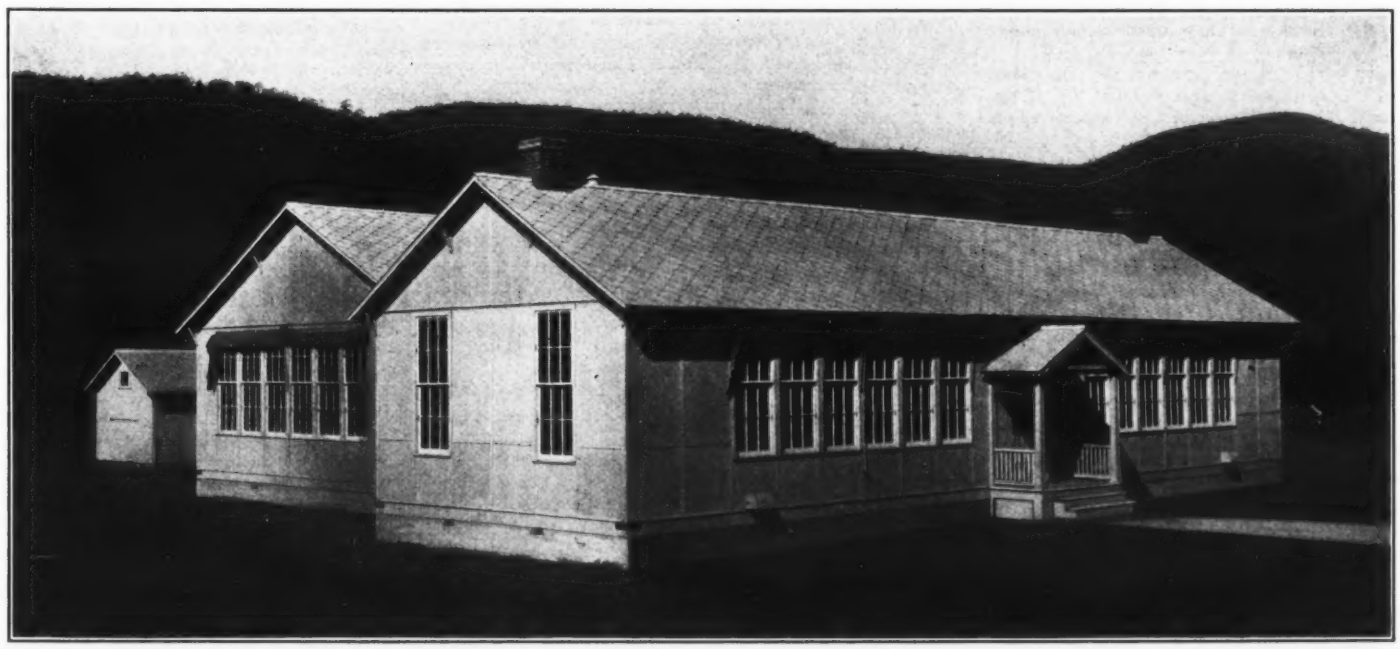
In Ambler Schoolhouses you enjoy a duplication of every advantage of the finest masonry buildings. You get fire-resistant construction, excellent lighting and ventilation, handsome appearance, good insulation and easy heating, practical, convenient arrangements of plan, and a structure built for a generation of service. Everything that you would specify for a model school is embodied in Ambler buildings, yet the cost is within the reach of every school community.



Due to the advanced factory-construction methods, Ambler Schools are quickly available if an emergency arises—any number of rooms with provision for future additions. Quick shipment and rapid erection are possible at any time. Let us send you the new Ambler catalog—a reference book to advanced schoolhouse construction. Yours for the asking.

AMBLER
FIREPROOF ASBESTOS SCHOOLHOUSES

Asbestos Buildings Company
LIBERTY TRUST BLDG., Broad and Arch Sts., PHILADELPHIA, PA.





the next time— consider "PLUMBING NONCO FIXTURES" for economy

The next time you pay for repairs or replacements, consider that NONCO plumbing fixtures are famous for their economy. Consider that today many schools are enjoying trouble-free service from NONCO fixtures which have lain buried behind walls and beneath floors for more than forty-five years. Consider that true economy is measured by years of service as well as by original cost—then you cannot help but consider NONCO.

During the half century which the N. O. Nelson Manufacturing Company has spent in the development of plumbing fixtures for schools, there has been built up a service department having at its disposal a vast amount of data and information. This department is pleased to cooperate with school officials and architects in the solution of problems involving plumbing and heating. Write then concerning *your* problems and request a copy of the interesting NONCO catalogue.



PLATE 4373 N

Vitreous china drinking fountain on concealed bracket, lever handle self-closing fountain valve with vitreous china bubbler having concealed pressure regulator, china index push-button faucet.

N. O. NELSON MFG. COMPANY

MAIN OFFICE: ST. LOUIS, MISSOURI

Factories:

Edwardsville, Ill. Noblesville, Ind. Bessemer, Ala.

Branches throughout the country.

PIONEER MANUFACTURERS OF PLUMBING FIXTURES FOR SCHOOLS

(Concluded from Page 126)

Addresses were made by T. T. Martin, state club agent, and Miss Hamilton, state rural supervisor. The latter spoke on the "Business of a School Board." W. E. Klepisch spoke on "Business Methods in Managing School Matters."

—The annual conference of the school boards of Preble county, Ohio, was held at Eaton under the direction of C. R. Coblentz, county superintendent. The speakers were H. T. Aker, county auditor, Dr. H. Z. Silver, county health commissioner and G. M. Kumler, state senator.

A regional conference of school-committee members, over 100 in number, was held at New Bedford, Mass., under the direction of Payson Smith, state commissioner of education. Preston H. Hood, a member of the Somerset school committee, discussed the relation of school superintendents to school committees. He prefaced his address with the observation that: "the first problem I am going to discuss is the election of a proper school committee.

"The members of the school committee," he said, "should have the confidence and respect of their community, and should be men and women of sound judgment.

"The next problem is the wise selection of a superintendent." Mr. Hood read a clipping describing superintendents at the recent education convention in Boston as a stiff, serious, sincere group.

"I think as a matter of fact," he said, "superintendents are really much more human. They have to be, because it is a part of their duties to explain their educational situation to the people and to the school committee.

"The school committee is not the autocratic body it has been widely reputed," he continued. "Much of its authority has passed into the hands of the superintendent; and there may come a day when the school committee will be abolished altogether, leaving the superintendent to carry on the work alone much in the same manner as the superintendent of streets."

—A convention of county school boards was held at Jackson, Mo. James T. McDonald, county superintendent, presided. Allen H. Hinchey of the Teachers College said in part: "In my opinion the school director is one of the most important citizens in a community. Leave off your work better than you found it, or you have failed. I would rather be school director than have any other office in the county. The school today is made up of four bodies; the board, teacher, students, and parents," he said. Other speakers were Supt. G. M. Cozean of Madison county, Supt. W. M. Welker of Bollinger county, and Supt. John A. Whiteford of Cape Girardeau. G. C. Allen of the Randolville school spoke on playground equipment.

—The annual meeting of the superintendents' section of the Minnesota Education Association was held April 5-6, in the auditorium of the University of Minnesota, Minneapolis, Minn. Mr. O. W. Herr of Northfield, president of the association, presided at the sessions.

At the first session, Supt. J. C. West of Bemidji, Minn., talked on "The Superintendent as a Business Man," and Supt. S. T. Neveln of Austin, gave the report of the committee on the placement of teachers. Supt. G. H. Sandberg of Rochester, led the discussions.

At the second session, Mr. Dean M. Schweickhard, state supervisor of trade and industrial education, talked on the subject, "The Functioning of Commercial and Industrial Education," and Mr. H. H. Kirk of Faribault, discussed "The Beginning Superintendent and the Improvement of Instruction." Mr. L. U. Towle of Detroit Lake, gave the report of the committee on ethics, and Mr. S. E. Tift of Litchfield submitted the report of the committee on statistics.

A business session was held at the close of the Friday meeting.

RULINGS APPLYING TO THE CUSTODIAN OF SCHOOL MONEYS

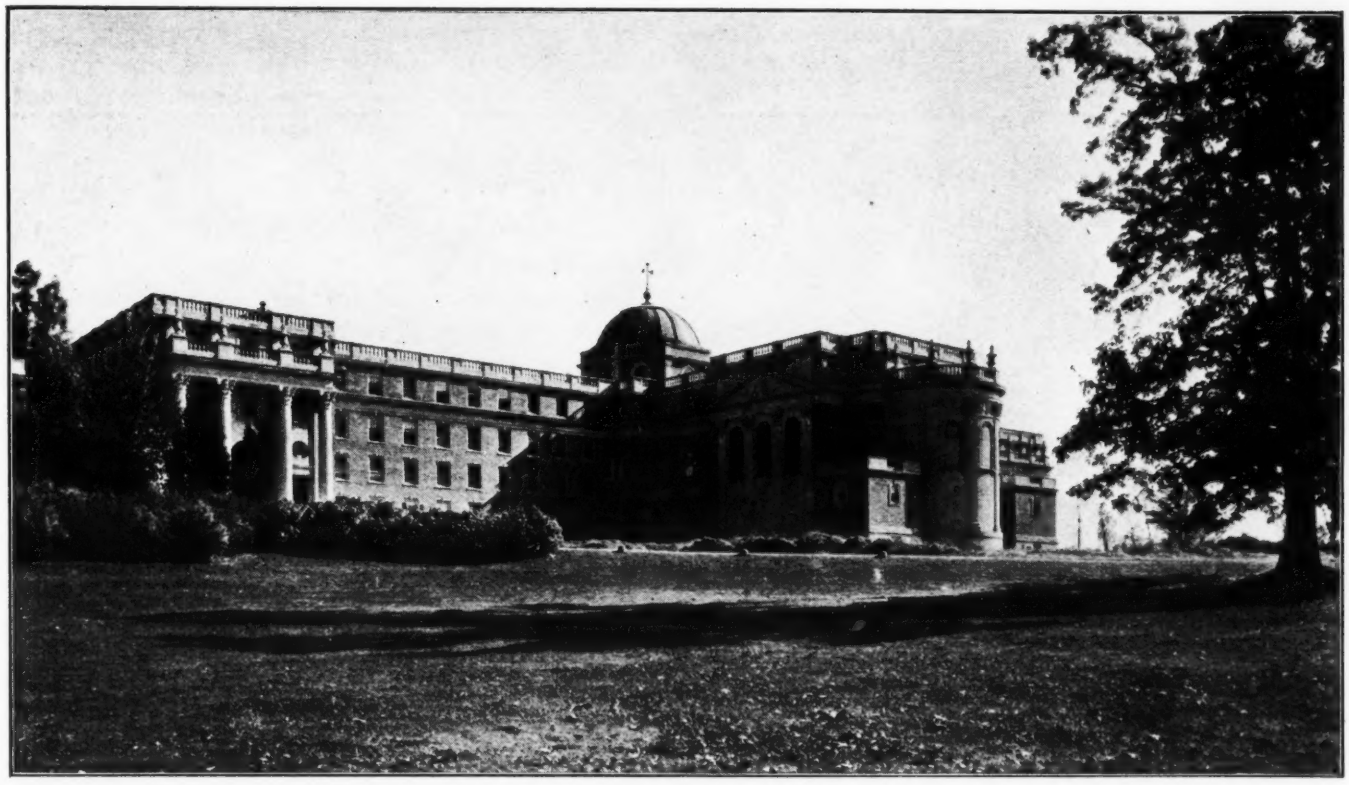
It has been contended by boards of education in school districts of New Jersey consisting of but one municipality that they have a legal right to insist that the custodian of school moneys give bonds for the faithful discharge of his duties in addition to his official bond as treasurer or collector, and that they have as boards a right to designate a certain bank as the depository for school funds and can compel the custodian to place school moneys therein. This contention is based upon the requirements found in chapter 302 of the public laws of 1915.

An extract from an opinion of the state commissioner of education upon the subject is given in the case of the board of education of the city of Bayonne, v. John J. Ryan, custodian of school moneys, which was rendered in April, 1927.

"It should be noted that no amendment was made as to the place of deposit of school moneys and the giving of bonds by the custodian in that part of the section, which deals with the custodian's official duties being covered by his bonds as municipal treasurer or collector and with his official duties generally, but that on the contrary such amendment as to the place of deposit of school moneys and the giving of bonds appears only in the latter part of the section after the new provision 'whenever any school district shall contain more than one municipality, etc.' This clearly indicates that it was the intention on the part of the legislature to allow the board of education to impose such requirements upon the school custodian as appellant contends for, only in the case of school districts containing more than one municipality. Moreover, since the first part of the section definitely provides that the bonds of the treasurer or collector shall be deemed to cover his duties as school custodian, it must follow that the added provision in the section for the giving of individual bonds by the custodian applies only to the custodian of school moneys in districts consisting of more than one municipality. It follows that both provisions thus connected relate solely to the custodian of school moneys in a district of more than one municipality."

According to the decision, therefore, in a district consisting of but one municipality, the bonds of the custodian of school moneys are controlled by that part of the section of the law which provides that the bonds given by the municipal treasurer or collector shall be deemed to cover his duties as custodian of school moneys; and the place of deposit of school funds is entirely a matter for the exercise of the discretion by the custodian of school moneys himself, who is under no further statutory requirement in that respect than to receive and to hold in trust all school moneys belonging to such school district, which shall be paid out by him only on orders legally issued and signed by the president and district clerk or secretary of the board of education.

—Mr. W. R. Booker of Greenville, Mich., has been elected superintendent of schools at Muskegon Heights, succeeding L. L. Tyler. Mr. Booker is a graduate of the University of Indiana and has been head of the Greenville schools for ten years.



Par-Lock Protects the House of Studies

THE new House of Studies at Weston, Mass., is a noteworthy addition to the educational architecture of America and the use of Par-Lock in this stately structure is an endorsement of the highest authenticity.

Par-Lock Specifications A and B were used on columns, beams and ceilings throughout. Par-Lock Specification I was used on all exterior walls that were furred.

The architects are Maginnis & Walsh, Boston; the general contractors, J. P. Keating of Boston and the plastering contractors, Nicholson, Ferris and Sheehy of Boston. The Par-Lock Appliers of Boston, Inc., applied the Par-Lock as described.

There is a Par-Lock Applier ready to help you with your problems of damp-proofing and plaster key.

THE VORTEX MANUFACTURING COMPANY
1987 West 77th Street .. .. Cleveland, Ohio

Par-Lock
PLASTER KEY

Par-Lock Appliers

ALBANY,
425 Orange Street
BALTIMORE,
613 West Cross Street
BOSTON,
45 Commercial Wharf
BUFFALO,
958 Ellicott Square Bldg.
CHICAGO,
111 West Monroe Street
CLEVELAND,
218 Hunkin-Conkey Bldg.
COLUMBUS,
751 South Cassingham Rd.
DETROIT,
2544 First National Bldg.
KANSAS CITY, MO.
2035 East 19th Street
MINNEAPOLIS
200 Builders Exchange
NEWARK, N. J.
24 Commerce Street

Par-Lock Appliers

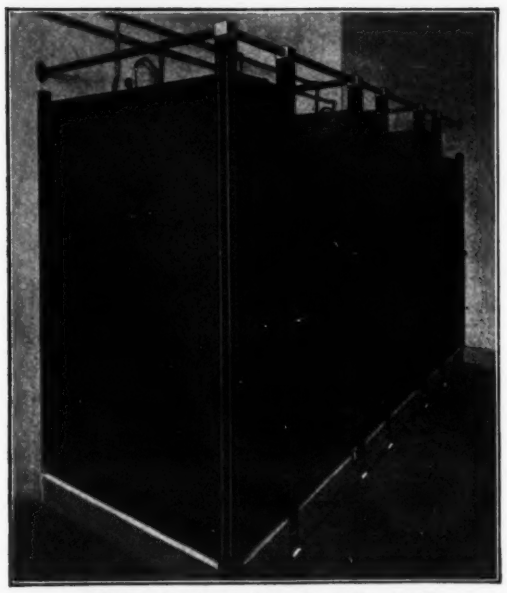
NEW YORK CITY,
50 Church Street
PHILADELPHIA,
1700 Walnut Street
PITTSBURGH,
207 Fulton Building
SCRANTON, PENNA.
Cedar Avenue
ST. LOUIS
906 Chemical Building
TORONTO,
2258a Bloor Street, West
TRENTON,
339 Broad St. Bank Bldg.
YOUNGSTOWN,
503 City Bank Building
WILKES-BARRE, PA.
904 Second Nat'l Bank Building
PAR-LOCK CORK INSTALLATIONS
United Cork Companies,
Lyndhurst, N. J.



P-21

Craftsmanship in Metal
The Sanymetal Symbol
PARTITION BUILDERS SINCE 1915

New Flush Type Sanymetal Partitions



Salesian Institute—New Rochelle, N. Y.

MANY School Boards prefer toilet and shower partitions without moulded panels. We have developed the flush type Sanymetal partition illustrated to take care of this ever-increasing demand. The flush surfaces of this partition are easily kept clean and sanitary. Its Interlocking construction makes it water tight, and it is also fire-safe and vermin-proof.

Sanymetal Partitions of all types are beautiful in design and finish, sturdy in construction, easy and economical to install. These advantages, together with cleanliness and sanitation, account for Sanymetal popularity for school installation everywhere.

Sanymetal Products for Schools are: Toilet, shower, dressing and urinal compartments. Corridor and smoke screens. Metal doors and wainscot. Sanymetal Gravity Hinges. Write for New Catalog No. 30.

THE SANYMETAL PRODUCTS CO.
1703 Urbana Road - - - Cleveland, O.

For Schools Sanymetal T.M.Reg Toilet and Shower PARTITIONS

BUREAU OF EDUCATION URGES REVISION OF SALARY SCHEDULES

The U. S. Bureau of Education at Washington, D. C., has completed a study of teachers' salaries, which indicates that the amount of professional preparation by teachers has not been proportionately rewarded by salary increases. The bureau recommends that state schedules be formulated, upon scientific bases, so as to give more accurate recognition in salary to professional improvement, experience, and teaching efficiency. The full text of the bureau's report is as follows:

The statement is often made that the salaries paid teachers chiefly determine the quality of young people attracted to the profession, the quality of professional preparation they receive, and the length of time they remain in the service. In states without well planned salary schedules, there will be found little relationship existing between the salaries paid and the teachers' professional preparation. Teachers with a minimum of professional training are paid nearly as much as those with much training, and increases in salaries have come about mostly because of length of service. The amount of professional preparation has had apparently little influence on the attainment of a maximum salary.

To remedy this condition it is recommended that a state salary schedule be formulated that is adaptable to the varying needs of the state. Such a schedule, scientifically prepared, should make provision for increases in salaries on the basis of such factors as professional improvement, experience, and teaching efficiency.

According to investigations made by the Bureau of Education, the states that have enacted minimum salary schedules are North Dakota and New York. The North Dakota law, passed in 1921, provides a minimum amount of training and a minimum salary for teachers; and that after August 31, 1923, any entering teacher shall, as a minimum requirement, hold a diploma from an approved four-year high school, or the equivalent, and meet all certificating requirements as to professional study. That for such preparation the minimum salary be $810 per year of nine months, and that no less than $50 per year shall be added for each year of service in the profession for a period not to exceed five years.

The New York law, which became effective on August 1, 1923, provides that the salary for teachers of kindergarten and first to eighth-year grades shall be $800 the first year, with an annual increment of not less than $75, the number of annual increments not less than eight; and for high-school teachers, $900 for first year, with an annual increment of not less than $75, and the number of increments not less than eight.

The question of equal pay for men and women teachers doing the same work continues to occupy the attention of many boards of education. The granting of more pay to men is defended by some boards on the ground that in order to get men teachers they must be paid more than women, for women will work for less. Such boards contend that supply and demand should regulate the salary.

If competent men are to be retained in the profession, any equal-pay schedule should provide that the salaries of the women be made equal to those paid men rather than that there be any averaging of the salaries of the two.

A president of a North Dakota normal school thinks that "beginning salaries are altogether too high for young, inexperienced, unprepared teachers, and ultimate salaries are altogether too low to induce people of ability to make adequate preparation, and to remain in teaching until they become really efficient."

A TEACHERS' SALARY SCHEDULE AT BOX ELDER, UTAH

Mr. C. H. Skidmore, superintendent of schools at Box Elder, Utah, has prepared a salary schedule, which provides uniform pay for teachers, arranged according to the experience and ability of the individual teachers and the financial ability of the district. It is called an L-M-N-O-P schedule, since the steps of progress in the schedule are represented by numbers and groups in which the teachers are classified and arranged by letters. Each step in the classification represents a definite amount of preparation and training, which increases as the teacher increases her efficiency through added training and years of experience. The schedule is as follows:

Let the capital letters, L, M, N, O, be placed at the head of major columns to represent 2, 3, 4, 5, or more years of college or professional preparation by the teacher, with $150 difference from column to column. The small letters *a* and *b* are the headings of columns which differ by only $50, and serve as easy steps between the major columns. Such columns permit recognition for as little as one third of a year's scholastic preparation, if desired. (Twelve weeks of summer school.)

The numbers on the left represent the steps of progress upon the schedule, *depending upon the years of experience and ability of the teacher and upon the financial ability of the district.* The first line is for the beginners and is marked zero. If a teacher has taught a year successfully and the school board is willing and able, she will get $100 more than at the beginning, as shown in the second line and opposite step number one. Classification *L1* would mean she is in that group which has two years of preparation, has taught one year successfully, and the board has allowed her to step forward regularly to receive the $100 increase. The classification *N2*, likewise designates the group of teachers who began with four years' preparation and who have made two steps of progress on the scale, etc. The first five steps in the schedule provide for regular increases of $100, but the last five steps provide for only $50 per step. Where the district is divided into zones there should be added to each of these amounts $50, $100, $150, depending upon how remote the zones are distributed.

ARE TEACHERS HEALTHY?

While in other occupations the health of the employee is taken seriously from the standpoint of securing the best work, if from no more unselfish viewpoint, the physical welfare of the teacher has not been given the attention it deserves.

The bureau of education recently completed a study of the health of teachers covering the past two years. The findings show that so far as the death rate is concerned, teachers are remarkably healthy. Comparing the number of sick and the length of absence, with similar records for industrial and clerical groups, the health of the teacher appears to be superior.

The statistics for causes of disability show that the teacher is not more subject to the diseases of the respiratory organs than other indoor workers. The percentage of cases and absence is as low as in other occupations, and considering the season in which teachers work and the proportion

(Concluded on Page 133)



It's FREE and given willingly

The scientific advice of the Sonneborn Laboratories on School Building Preservation

WITH vacation time near, you are considering what repairs your building needs, and what products will renovate your building most efficiently. You can get all your vacation repair products from Sonneborn.

Some Sonneborn Products



CEMCOAT

If you use Cemcoat Paint, you will know why Sonneborn products save money and give lasting satisfaction. Cemcoat does not turn yellow. It gives a glass-like surface that does not crack, peel or blister. On new work, Cemcoat undercoating and Cemcoat gloss finish will do the work of three coats of other paints. Can be washed over again and again.



HYDROCIDE

Hydrocide Colorless will keep your building dry and warm in all weather. This water-repellent will caulk it against the elements.



SONOTINT

Sonotint is kind to the eyes. Has no lustre, for in classrooms there should be no glare. It is a handy paint that gives the very maximum of service. Dust, ink spots and finger marks can be wiped off without marring the surface, and it has no poisonous ingredients. Absolutely safe. Can be washed with soap and water daily.



LIGNOPHOL

There is only one way to preserve the investment in your costly wood floors. The U. S. Government says linseed oil is useless. Shellac and varnish wear off. Only Lignophol lasts! Whether your floors are new or old, Lignophol can make them dustless.



LAPIDOLITH

If you have dusting concrete floors, Lapidolith will remedy the trouble. This chemical combines with the free lime in the concrete, and gives a granite - hard surface that will not wear nor dust.

IF YOU HAVE ANY SPECIAL PROBLEMS, THE SONNEBORN LABORATORIES WANT TO HELP YOU SOLVE THEM. Our laboratory and engineering staff has cooperated with hundreds of schools and colleges on school upkeep problems. We will gladly supply you with a list of these users to whom you can write to prove to your own satisfaction the worth of Sonneborn School Products.

Use the coupon below to obtain our literature, and you will find in it all the products your building needs for economical, efficient, long-lasting upkeep.

When you deal with Sonneborn you deal with a long-established, reputable concern that values its standing among the schools of the country. You can be certain of quality products and interested service. Sonneborn always, under all conditions, makes good.

Mail the coupon and indicate what type of work you plan.

COUPON

L. SONNEBORN SONS, Inc. S.B.J.-5
114 Fifth Ave., New York

Please send data on following—

We plan to repair floors.

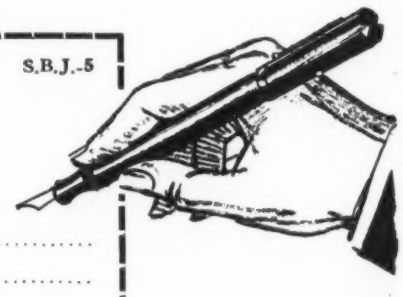
Wood..... Concrete .....

We expect to paint.....

.....

Name.....

Address.....



L. Sonneborn Sons, Inc.

114 Fifth Avenue, New York City

BAY WEST

KRAFT PAPER TOWELS



"A Big Improvement, Mr. Burke . . These Bay West Towels"..

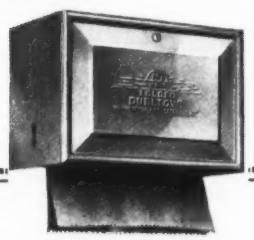
"Teachers say they're O. K. Children like them, too, as shown by cleaner hands and faces." That's the kind of report the school board gets when Bay West All-Kraft Paper Towels are installed.

Bay West Dubltowls

Two soft, strong sheets of all-kraft crepe served and used as one towel. Twice the number of sheets per carton. The most acceptable paper towels manufactured.

Bay West Singltowls

One strong, heavy, all-kraft sheet dispensed at a time. A high quality towel service of unusual merit, at low cost per towel.



Bay West Dispensing Cabinets

A complete line of dispensing cabinets for Bay West towels—or any standard size cabinet may be used. The De Luxe shown here was placed on 75,000 walls in the last 3 years. Write for complete catalog.

BAY WEST PAPER CO., Green Bay, Wis.

BAY WEST PAPER CO., GREEN BAY, WIS.

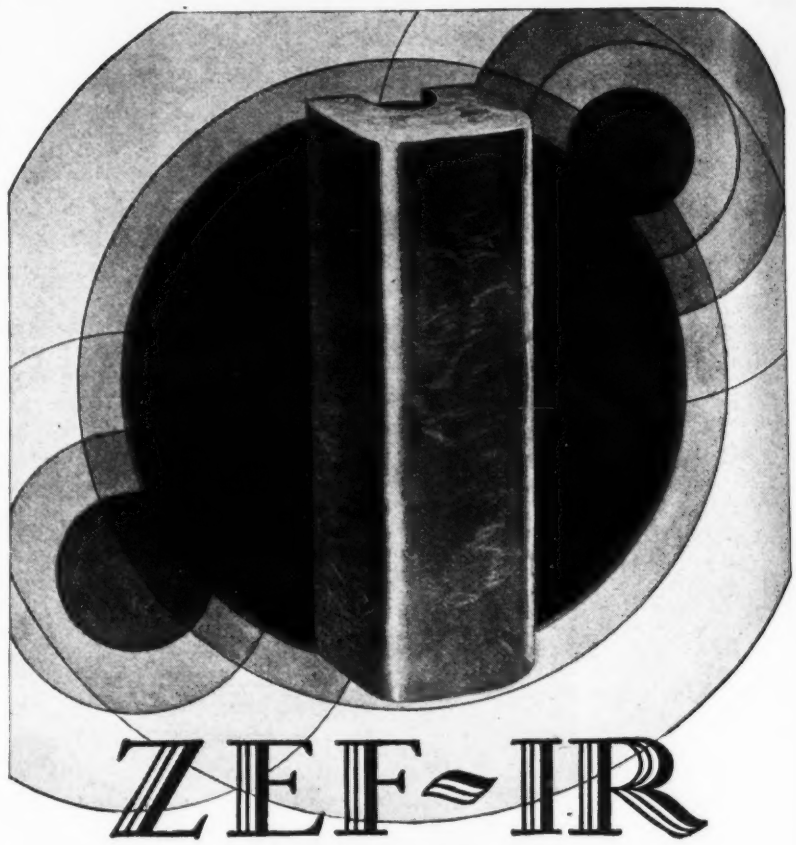
Please send me your De Luxe Dispensing Cabinet and several packages of both towels for free trial. It is understood that no obligation is involved and that carrying charges will be prepaid.

Name.....

Address.....

.....

School.....



ZEF-IR

BLOCS
CRYSTALS
BLOCKETTES

PURIFY **the air—*actually correct air conditions.* Zef-ir Blocs are indispensible adjuncts to the ventilating and sanitary systems in any building.**

CLEAN **to handle and clean to use, because molded cold under pressure. Evaporation is uniform and there is no residue or exuding oil. Neat wall cases are furnished in a variety of finishes to harmonize with any color scheme. Both Zef-ir Blocs and Zef-ir Crystals are made in several fragrant pleasing odors.**

GUARANTEED **to last. Zef-ir Blocs are put up in neat, compact outfits containing one wall case and six Blocs *guaranteed to last a full year.* 97% of the material in Zef-ir is volatile.**

BLOCKETTES: **Urinal cakes which are indespensible for keeping toilets sanitary and free from offensive odors. Packed in neat attractive lithographed tins, each containing nine cakes.**

CRYSTALS: **Zef-ir Crystals are put up in handy shaker-top cans. The Crystals may be sprinkled around in inaccessible corners, under seats, etc. The most useful and handy air purifier and sweetener made.**



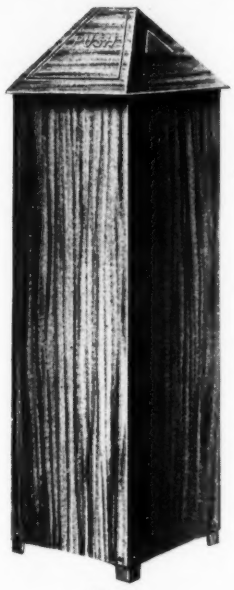
Ask for more information

FROM HUNTINGTON LABORATORIES

THE HUNTINGTON LABORATORIES, INC.
HUNTINGTON—INDIANA.

All Zef-ir products are subjected to strict tests in our laboratories and are fully guaranteed for uniformity and lasting qualities.

Solars Will KEEP Your School Clean



No. 15

"For several years we have used Solar self-closing Receptacles and find them very satisfactory. They are durable, sanitary, and look well in a room."

F. E. DeGelleke, Supv. Prin., Sea Cliff Public Schools, Sea Cliff, New York.

SOLARS ARE OBTAINABLE IN NINE SIZES AND FINISHED IN GRAY, GREEN, WHITE, AND GRAINED MAHOGANY.

and do it economically for these 6 reasons

1. **Reduce Cleaning Costs**—Solar swinging top actually compels use. Removable inner containers lift out complete with contents.
2. **Eliminate Fire Hazard**—Solar top swings open only to admit rubbish, and being all-steel is ever closed against fire danger.
3. **Sanitary**—Solars keep flies from breeding and feeding on waste matter. They are definite aids to cleanliness.
4. **Reduce Plumbing Expense**—Small models designed for sanitary napkin disposal in girls' toilets eliminate plumbing troubles.
5. **In Keeping With the Finest Surroundings**—Solars harmonize with attractive surroundings, replacing untidy open containers.
6. **Last for Years.** No replacements—nothing to get out of order. Will withstand hardest usage.

SOLAR-STURGES MFG. CO.
Melrose Park, Illinois



No. 3 No. 5 No. 10 No. 12 No. 30 No. 40 No. 15 No. 50 No. 60

There's a **SOLAR** *for every use*

SOLAR-STURGES MFG. CO.
RECEPTACLE DIVISION,
MELROSE PARK, ILLINOIS.

Gentlemen:

Please send me your catalog and complete detailed information about SOLAR Self-Closing RECEPTACLES.

Position.....

Address.....

School.....

Use this coupon for full particulars.

(Concluded from Page 130)

of absence, the illness from respiratory diseases is considerably less than among other workers.

Diseases of the digestive organs are less common among teachers than among other groups studied. Even the nervous wear and tear of teaching does not appear to raise the percentage of illness or absence from this cause to that of other workers. The teacher must be given credit for taking better care of herself along these lines than the average person.

When it comes to nervous diseases and those conditions termed neurasthenia or nervous exhaustion, the case of the teacher is not so favorable. While these disturbances may not incapacitate the teacher more than is the case in some other occupations, such conditions are so prejudicial to the work of the teacher when she is in school that every effort should be made to reduce them. It is believed the amount of disability from this disease is far greater than it should be.

THE STATUS OF THE INDIANA TEACHER-TENURE LAW

Several thousand Indiana school-teachers, who are on the verge of being accepted or rejected for indefinite teaching contracts with their present employers under the teacher-tenure law, are becoming uncertain regarding the law and its advantages. Inquiries at the teachers' employment agencies, the Indiana Teachers' Association, and at the office of the state superintendent of public instruction have revealed that a state of perplexity exists in the ranks of the 25,000 teachers of Indiana.

The question that faces most of them is what the township trustees and school commissioners of several hundred cities and towns are going to do about the granting of teacher-tenure contracts for the coming year. It is asked: "Are the officials and trustees originally opposed to teacher tenure going to continue in some districts with their former opposition?"

Reports are reaching Indianapolis that many of the township trustees employing teachers in the rural schools and unincorporated towns, will refuse to reemploy any teacher who, having completed five consecutive years of employment, now is eligible to receive the tenure or permanent contract. They are following a general sentiment of opposition to the tenure theory expressed at the last meeting of the Township Trustees' Association of Indiana.

In Hendricks county, just west of Indianapolis, the trustees are open in their statements that they will not have the tenure law. They are said to have started a plan for exchanging tenure-eligible teachers with one another. The teacher who has worked five years in one township is being exchanged with one of another township in the county, thus making her ineligible under the tenure law for a continuous contract. Other counties in the state contemplate similar action.

Much unrest among the teachers and school officials has been caused as a result of the transition period preceding the new tenure era. Commissioners and trustees all over the state, particularly those who regard the tenure a good thing, during the last year have become more and more deliberate and exacting in their selection of teachers who have the ability and qualifications which entitle them to permanent contracts. The fact that permanent-contract teachers can be discharged only after hearing on preferred charges of "incompetency, insubordination, neglect of duty, immorality, justifiable decrease in number of positions, or other good and just cause, but not for political or personal reasons," has caused those granting contracts to develop caution.

Intense scrutiny of qualifications has added to the general feeling of uneasiness. Many teachers advanced in age but not yet eligible to pension, who might have been retained under annual contracts, are finding it difficult to receive permanent contracts.

The state teachers' association, after having promoted the law last year, has carried no further its disagreement with those opposing the theory. Its only expression on the application of the law has been one of optimism and hopefulness, recognizing that it will require some time for tenure to become fully applied throughout the state.

VISITING TEACHERS ON INCREASE

—Many school systems are employing visiting teachers in order to find out why the school does not function effectively. This is the substance of a report on the subject by the United States Bureau of Education. In part it says:

In order that such help may be given, several cities have employed visiting teachers who study the whole child, not merely during the five hours in which he is under his regular teacher's eye, but in his home and environment, and when maladjustments have been discovered to cure them.

The cases coming within the jurisdiction of the visiting teacher, to be more exact, are maladjustments in scholarship, involving subnormality, retardation, precocity; adverse home conditions—poverty, improper guardianship; misconduct in and out of school; and irregular attendance.

The popularity of the visiting-teacher movement is evidenced by its growth. It was first adopted into the school systems of New York, Boston, and Hartford, Conn., in 1906-07. At the present time 74 cities report visiting teachers. Many of these cities have from 15 to 20 teachers each.

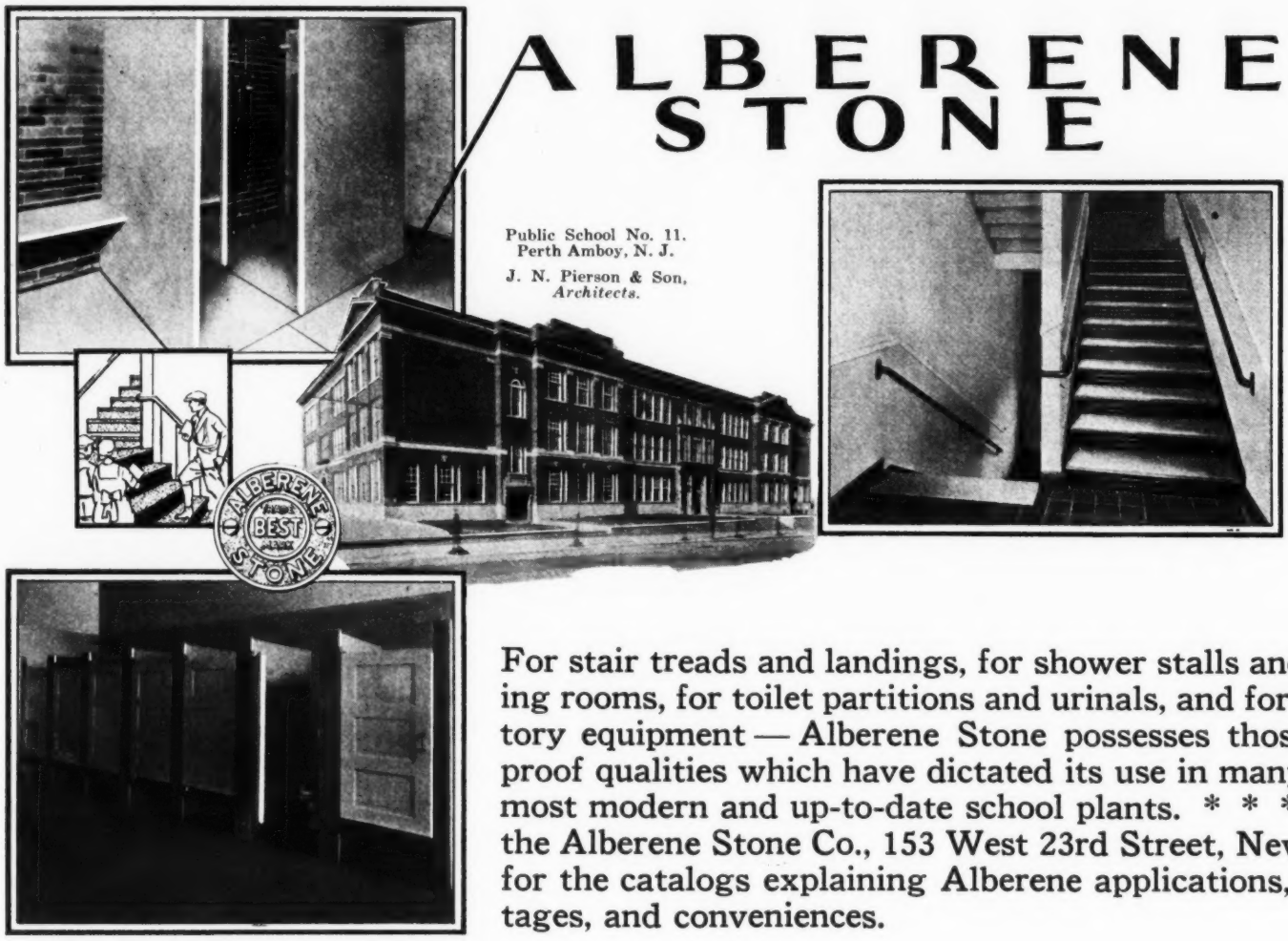
In 61 of the 74 cities reporting the employment of such teachers, their salaries are paid wholly from public funds. In 20 of these cities, the movement was sponsored by the National Committee on Visiting Teachers of New York City. The foregoing association paid two thirds of the salaries for a stated time; then, when the value of the work had been demonstrated, it was taken over by the boards of education and the teachers were paid from public funds.

One school official, speaking of the visiting-teacher movement, said: "The school as the nurse or the doctor, the truant officer, and the regular teacher. The work of the truant officer is largely corrective; the work of the visiting teacher is essentially preventive."

TEACHERS AND ADMINISTRATION

—The board of education of Winfield, Kans., has enrolled each teacher in the National Education Association as a special inducement to professional advancement and more effective teaching.

—In a public address before the Kiwanis Club at Winamac, Ind., J. Allen Kemp, county superintendent, contended that school boards are exacting high character on the part of the teachers. He said among other things that: "Boards of education—our own among others—are scrutinizing more closely the conduct of teachers, their habits in the social life of the community. Impetus is given this disposition doubtless by our recent educational legislation, as the new minimum wage and teachers' tenure laws. Very reasonably, boards want the most obtainable for our money by way of exemplary living among leaders of our boys and girls."



For stair treads and landings, for shower stalls and dressing rooms, for toilet partitions and urinals, and for laboratory equipment — Alberene Stone possesses those time-proof qualities which have dictated its use in many of the most modern and up-to-date school plants. * * * Write the Alberene Stone Co., 153 West 23rd Street, New York, for the catalogs explaining Alberene applications, advantages, and conveniences.

WASHINGTON CORRESPONDENCE

A. C. Monahan, Formerly U. S. Bureau of Education

Annual Appropriation for the United States Bureau of Education

The annual appropriation for the year beginning July 1, 1928, for the U. S. Bureau of Education is contained in the interior department bill passed recently by Congress. The bureau is given a slight increase over the present year, including $4,000 for general expenses, $17,000 for the education of natives in Alaska, $10,000 for medical relief in Alaska, and $2,000 for reindeer supervision.

The 1928-29 appropriations are as follows: Salaries, $212,300; general expenses, including travel, $15,000; printing, $45,000; land-grant-college survey, $48,000; education of natives in Alaska, $486,500; medical relief work in Alaska, $160,000; reindeer development in Alaska, $19,500. All furniture, supplies, janitor service, heat, light, etc., are included in the general department appropriation.

The total personnel of the bureau remains practically the same as for the present year, except for the special appointments of men and women largely from the faculties of state colleges who are to conduct the survey of the land-grant colleges provided by special act of Congress. The total number of regular employees of the bureau in the Washington office is 94. These are divided into four groups: 34 in professional work, most of whom are designated as specialists; 4 in subprofessional work; 54 in clerical work of all sorts, including stenographers, statistical clerks, mail clerks, etc.; and two messengers. The employees in the Alaska service, for the education of natives in Alaska, the medical relief work, and reindeer supervision, are not included in the above.

Chief State School Officers' Meeting

An important meeting of the state superintendents of public instruction and state commissioners of education is to be held in Washington this fall, at a date not yet fixed, at the U. S. Bureau of Education with the Commissioner. The meeting is for the purpose of working out the problems relating to state educational offices, particularly as these relate to the United States Bureau of Education. In addition to important administrative matters, three questions will receive careful consideration:

1. Collection and publication of state and national educational statistics.
2. Better articulation of the clearing-house functions of state offices and the bureau of education.
3. Cooperative studies in educational administration practices.

The meeting was determined upon at Boston, in February, at the department of superintendence meeting. At this meeting the state educational officers designated the following committee to confer with the United States Commissioner of Education in making arrangements for the proposed meeting: State Supt. Francis G. Blair, of Illinois; State Supt. John C. Callahan, of Wisconsin; State Supt. John A. H. Keith, of Pennsylvania.

The chief state school officers have been holding annual meetings for approximately 18 years, usually on the day preceding the department of superintendence meeting. For several years these meetings were open only to these officers and officials of the U. S. Bureau of Education. Later they were attended by others from the state departments.

One of the principal accomplishments of these meetings is more uniform and accurate statistics of education now available resulting from forms and methods adopted by the conference looking toward greater general uniformity in methods of keeping school data. Further improvement is desirable and will undoubtedly result from this meeting.

Attendance at Boston Meeting of the Department of Superintendence

An estimated attendance of 20,000 persons at the recent meeting of the department of superintendence at Boston, including those at the department meetings and the meetings of other educational groups, indicates the problem facing the department in finding satisfactory meeting places in the future.

The Boston meeting was by far the largest meeting of the department ever held. The Washington meeting in 1926, the largest previous meeting, was attended by approximately 15,000 persons. The 1927 meeting at Dallas, because of the location, fell much behind the Washington meeting. In deciding upon places of meeting in the future, this rapidly increasing attendance must be taken into consideration.

A Merger of Secondary Educational Associations

Unity in purpose and action will come from the recent merger of two great secondary education associations and acceptance of the merger as a department of secondary education in the National Education Association. This was approved at the Boston meeting. The two associations which in the past have held separate meetings at separate places are the National Association of Secondary School Principals and the Department of Secondary School Principals. The new organization will have three distinct sections: the junior-high-school section, the senior-high-school section, and the junior-college section.

Education Associations

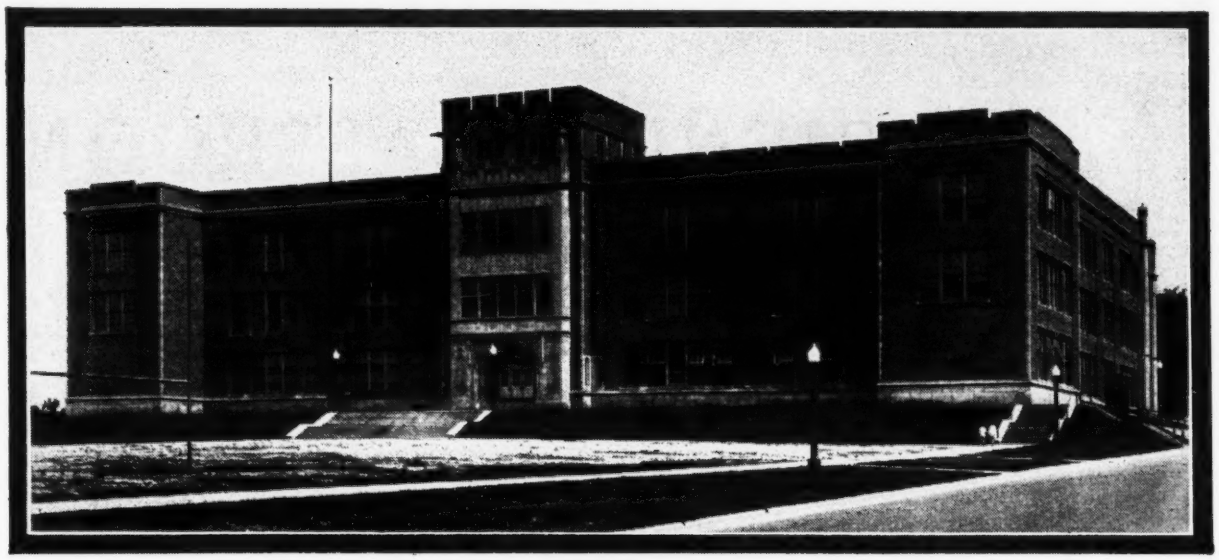
Twenty per cent of all public-school teachers in the United States are members of the National Education Association, according to the officials of that association, and 72 per cent are members of state education associations. In round numbers, 181,350 men and women belong to the national group, and 650,000 to the state organizations. Twenty years ago the National Education Association had an active membership of approximately 5,000, and the total membership in state associations was approximately one tenth of what it is now.

Cleaning Stone Exteriors

A theory which has long been held by stone producers and many others concerned with the weathering of natural stone, is that when the material is exposed to the weather, a protective skin or crust is formed which tends to overcome the effect of the elements. For this reason it is often stated that cleaning methods, such as sandblasting or any others which remove some of the surface of masonry, will destroy this natural protective coating and materially shorten the endurance of the stone.

Some weathered samples of limestone were recently subjected to experiments at the bureau of standards to determine if such a protective crust actually exists. One sample was a window sill from a building about 40 years old and another was a sill from a building about 30 years old. The two sets of specimens were prepared from each sample, one set having as one surface the weathered

(Concluded on Page 136)



Modern school interiors are painted clean to stay clean. That is one reason why so many School Boards specify Barreled Sunlight

Keeping school interiors *light*...*clean*... *handsome*... without frequent repainting

PAINTING with Barreled Sunlight has made the walls and woodwork in hundreds of modern schools lastingly clean, lustrous and beautiful.

Gloss, Semi-Gloss and Flat . . . pure white or easily tinted . . . this famous finish can be used *throughout* the interior.

Barreled Sunlight Gloss gives a rich enamel finish so flawlessly smooth it offers no foothold for dirt. Surface dust and fingermarks are easily washed off, and frequent washing will not harm the finish.

So opaque and free-flowing that less paint and less labor are required for a given job.

Barreled Sunlight Semi-Gloss is widely used on surfaces that require less than a full gloss. It has a beautifully soft lustre and washes readily.

Flat effects for walls of well-lighted rooms are obtained with Barreled Sunlight Flat. An extremely handsome finish. Washable, too, though naturally less durable than the Gloss or Semi-Gloss under constant washing.

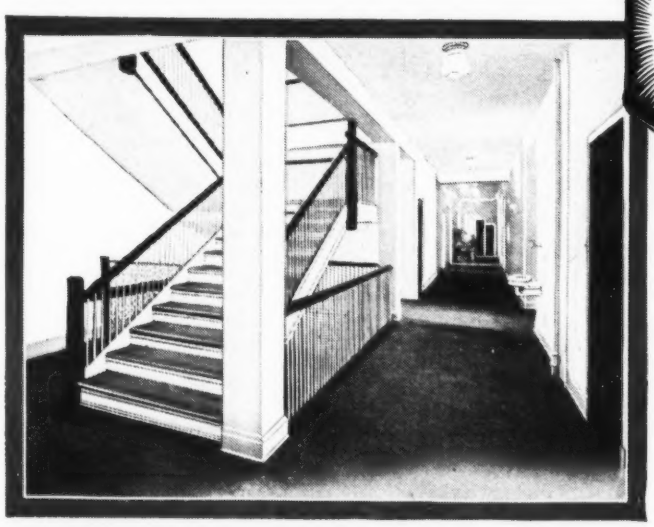
Barreled Sunlight is guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions—also not to flake or scale if properly applied.

In quantities of five gallons or over we tint Barreled Sunlight to order at the factory, without extra charge. For tinting small quantities our dealers carry handy tubes of Barreled Sunlight Tinting Colors.

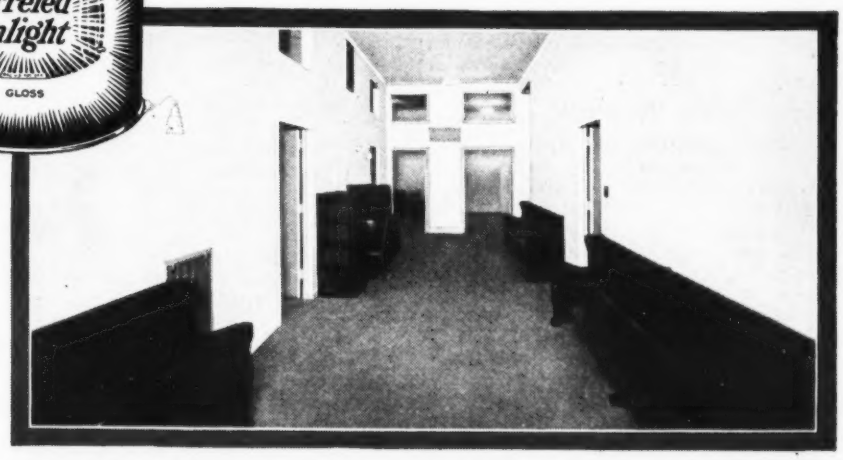
Barreled Sunlight is sold in cans from ½ pint to 5 gallons, and in 30- and 55-gallon churn-equipped steel drums. Where more than one coat is required, use Barreled Sunlight Undercoat first. See coupon below.

U. S. Gutta Percha Paint Co., Factory and Main Offices, 44-E Dudley Street, Providence, R. I. New York—420 Lexington Avenue; Chicago—659 Washington Blvd.; San Francisco—156 Eddy Street. Distributors in all principal cities.





Wherever walls and woodwork are subject to constant smudging, Barreled Sunlight Gloss answers painting problems. Washable as tile. *Good for years of service without repainting!*



Barreled Sunlight Gloss or Semi-Gloss gives a rich enamel finish with a "depth" peculiar to itself. And it reflects light of just the right quality *as well as quantity.*

Barreled Sunlight

Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.
44-E Dudley Street, Providence, R. I.

Please send me descriptive literature and a sample panel painted with Barreled Sunlight. I am interested in the finish checked here—

Gloss ( ) Semi-Gloss ( ) Flat ( )

Name.....

Street.....

City..... State.....



HYGIENIC CLASSROOMS

INSURE BETTER SCHOOL HEALTH

Hygienic conditions justify the adoption of Hillyard's Standard U. S. Registered products. Schoolroom maintenance with the Hillyard method insures healthful and wholesome surroundings so necessary for efficient school work.

STER-O-MINT
This fragrant purifying spray leaves the air pleasant and clean. Produces a lasting fragrance.

SHINE-ALL
cleans, polishes, and preserves in one operation all types of floors, walls, woodwork, and desks. The one cleaner for every surface.

PINE-O-CIDE
an antiseptic which reduces the spread of communicable diseases to a minimum and insures sanitary conditions.

TRACKLESS FLOOR DRESSING
a scientifically prepared wood floor product which reduces expense of floor maintenance, producing lighter and cleaner floors. Rejuvenates the beauty of the wood.

COCOANUT LIQUID SOAP
a pure liquid soap with a heavy anhydrous base. Individual service promotes hygiene.

Hillyard Chemical Company
ST. JOSEPH, MO. U.S.A.

Copyright 1928

(Concluded from Page 134)

face of the stone as removed and another having as one surface a face cut 4 inches below the weathered face. These were tested for permeability, absorption, and abrasive hardness. Permeability tests were made under a water pressure of 100 pounds to the square inch and absorption tests were made in such a way that the water was absorbed only by capillary forces through one face of the slabs. In all tests, the results indicated that stone near the weathered face was more absorptive, more permeable to water, and softer than the material 4 inches below this surface. The permeability of the specimens cut at the exposed face of the sample 40 years old was about twice as great as the permeability of specimens cut from the interior. Hardness tests indicated that the weathered surface was abraded about 50 per cent faster than the unweathered stone.

Cleaners for Terra Cotta

In connection with its study of the physical properties of architectural terra cotta, the Bureau of Standards has investigated the behavior of several cleaners for this material. It was found that sodium hydrosulphite cleaned terra cotta very well and did not corrode the glaze. Fluosilicic acid also cleaned the terra cotta in a satisfactory manner and attacked the glaze but slightly. Trisodium phosphate proved to be a good cleaner on standard finishes, but was not very successful on glazed finishes. Soap powder is only a fair cleaner and has a tendency to scour, and thus roughen the glazed surfaces. Hydrochloric acid, also, is only a fair cleaner and has a slight corrosive effect on the glaze. Hydrofluoric acid removes the dirt better than any cleaner tried, but it also etches the surface finish badly, and, therefore, its use for cleaning terra cotta must be condemned.

CHICAGO CORRESPONDENCE

Teaching is considered a serene, safe, and sane profession, but Miss Florence Deneen, president of the Chicago Teachers' League, and eighth-grade teacher in the Altgeld school, recently found it exciting enough. She was hurled out of bed by the concussion of a bomb exploding in her home one night last month. Miss Deneen is a sister to United States Senator Charles S. Deneen, leader of a political faction in Illinois, and it is highly probable that her relationship to a powerful political leader, rather than her educational status, involved her in the unusual adventure. Although considerably shocked, Miss Deneen apparently was not injured by the experience.

On the afternoon of April 10, all Chicago public schools were closed on account of the primary election.

Spread across the top of the first page of the April 19 issue of the *Chicago Herald-Examiner* was a headline stating that it is not unlikely that a woman will be appointed to the superintendency of schools to succeed William McAndrew. The *Herald-Examiner* has consistently supported the present city administration and is presumed to be "on the inside."

The woman slated for the position is Mrs. Eva Holland Hamilton. Mrs. Hamilton, although a college graduate, has never been a teacher. She has been actively engaged in politics, however. The write-up states that before coming to Chicago she had been a state senator in Michigan. More recently she has been chairman of the William Hale Thompson Republican Women's Organization and chairman of the Republican Women's Organization in Cook County.

The argument for a "laywoman" for school head is that someone with tact, charm and poise rather than professional training in education is needed. The successful administration of Ella Flagg Young is cited to show that a woman can handle the job as well as a man.

If this appointment should go through, it would establish a new policy, a new chapter in the history of American educational administration. The same newspaper story stated that the appointment is not contemplated earlier than the fourth Wednesday in May, the date when the school board effects its annual reorganization. It further stated that Mr. H. Wallace Caldwell will probably supplant Mr. J. Lewis Coath as president of the board.

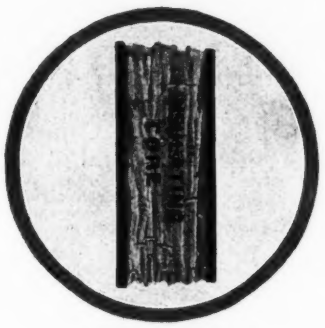
Two other women, neither of whom is a teacher, are also being considered for the superintendency, according to the *Herald-Examiner*. They are Mrs. Leonard Brundage, wife of the former Republican committeeman from the 24th ward and brother of former attorney-general for Illinois, and Mrs. Elizabeth M. Fihe, a practicing attorney.

Another item of interest to Chicago school folks concerning this primary election was the contest in the tenth district wherein a former president of the board of education, Mr. Charles M. Moderwell, the man who brought William McAndrew to Chicago as superintendent of schools, was opposed by the present president of the board of education, Mr. J. Lewis Coath, known as the nemesis of Mr. McAndrew, and the moderator who presided at the McAndrew trial. Mr. Moderwell ran on the Deneen ticket for the position of presidential delegate to the Kansas City Republican National Convention. Mr. Coath similarly ran on the "America First" ticket. Mr. Moderwell was elected; Mr. Coath was defeated.

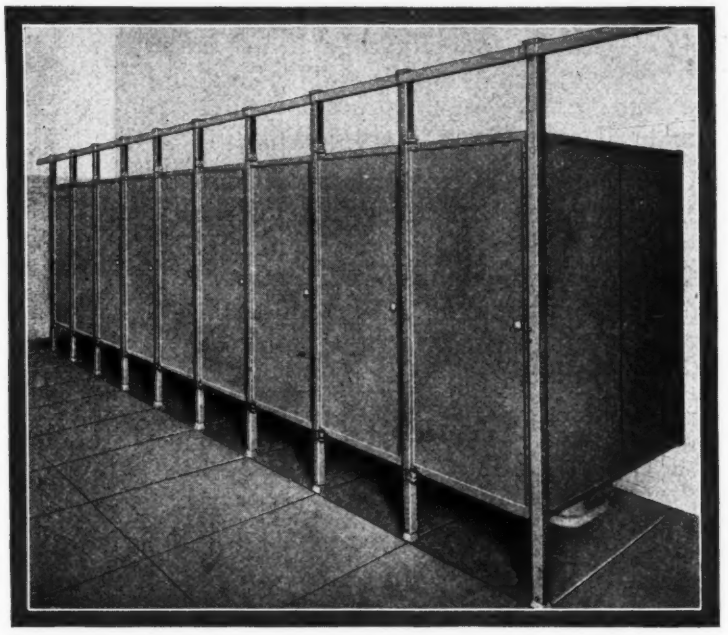
Of Chicago's 350 public schools, only one, the Forestville school, located on the south side, has an old-fashioned "school bell." For more than 40 years the opening of school has been heralded throughout the neighborhood by the peals from the belfry. Recently the belfry was ordered torn down to make way for a 12-room addition to the building. Sentiment for the relic of an earlier day in Chicago's educational history caused the citizens of the community to circulate a petition pleading for its retention. The board of education thereupon promised that the bell would be restored upon the completion of the new addition.

William McAndrew, editor of the *Educational Review*, and former associate superintendent of schools in New York City, brought to Chicago in February, 1924, and placed at the head of the Chicago school system, was formally "fired" on March 21, 1928, by the Chicago board of education on the charges of insubordination and of spreading pro-British propaganda. Mr. McAndrew served three and one half years of his four-year contractual term. A year ago, William Hale Thompson, candidate for mayor, made certain charges of unpatriotism and pro-British leanings. Upon his election, the new mayor appointed members of the school board who carried out his promise to discharge the superintendent of schools. Mr. McAndrew was suspended on August 29, 1927. Then followed a trial lasting seven months, requiring 27 sessions, and over 100 witnesses. A tremendous amount of publicity attended each step of the trial. On March 21, by a vote of 8 to 2, the trustees wrote "finis" to a stormy chapter in Chicago's none too placid school history. But the memory lingers on! At least three lawsuits growing out of the trial are yet to be heard, and some folks think the outcome of the recent primary election and the McAndrew trial have a trace of kinship. Mr. McAndrew's attorneys have undertaken an appeal to the courts. Mr. McAndrew has sued Mayor William Hale Thompson for $250,000, charging libel. And David Saville Muzzey, author

(Concluded on Page 138)



A Heavy Insulated Panel ¾" Thick



There Is No Equal To Marblmetal

MARBLMETAL is a direct response to a pronounced architectural demand for a combination of the fine qualities of marble and metal without the disadvantage of chipping, discoloring, etc.

Marblmetal is two sheets of steel insulated with sound-deadening, non-absorbing material making a panel ¾" thick. The panel is heavy, substantial, flush, presenting a dignified solidity that is a relief to the eye. Absolutely will not absorb odors and can be washed or refinished whenever desired. Delivered to the job finished in prime coat so final finish may be chosen to harmonize with your decorative arrangement or rich French Gray enamel baked on. Announced last month but several jobs already installed.

Marblmetal is a full expression of the finest in toilet partitions and yet reasonably priced. There is no equal to Marblmetal.

THE MILLS COMPANY

906 Wayside Road Cleveland, Ohio

BRANCHES

NEW YORK	CHICAGO	DETROIT
7 West 42nd St.	1218 First National Bldg.	2231 Park Ave.
Phone Longacre 10263	*Phone Dearborn 6100*	*Phone Randolph 3000*

REPRESENTATIVES IN PRINCIPAL CITIES :: DETAIL LITERATURE ON REQUEST

MARBLMETAL

Toilet Partitions

Would you wear a Flannel Shirt *For a white collar job?*

Of course you wouldn't!

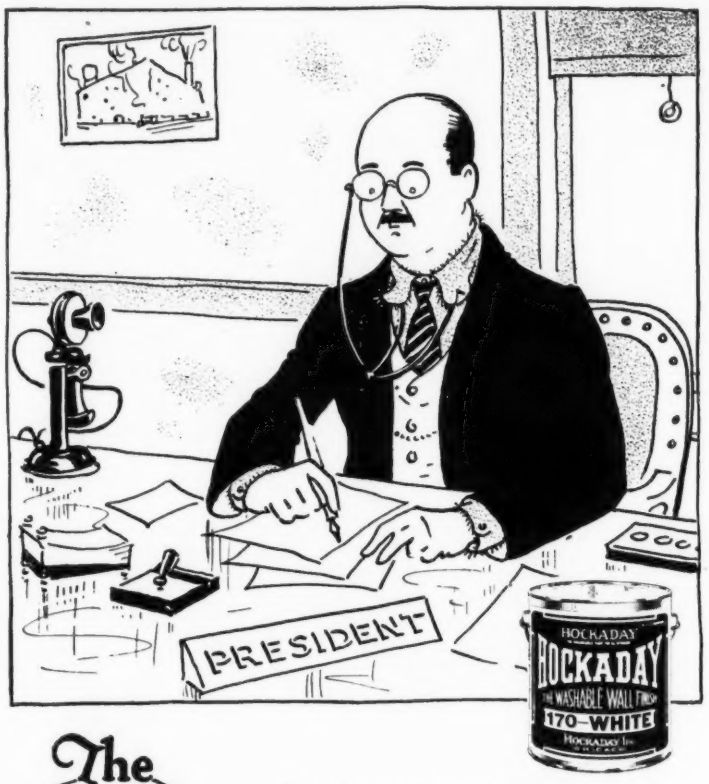
And isn't it the same to try to fill a dignified position with a background of dirt, and grime, on the wall of your office?

Building superintendents and owners can see to it that none of their tenants have to work against such a handicap. Cleaning a Hockadayed wall is just about as easy as changing a collar. Hockaday is a substantial, dignified paint that stands up under repeated washings. Dirt comes off its smooth surface as off a mirror. A quick bath makes Hockaday look like new and saves the cost of repainting.

Hockaday's use in such buildings as the Book-Cadillac Hotel, Detroit, the Pure Oil Building, Chicago, etc., shows the confidence of men responsible for building maintenance. Experience has proved that Hockaday spreads further and lasts longer; that it is immune to limeburn, air checking, suction and peeling. It pays to specify Hockaday.

HOCKADAY, Inc.

1823-29 CARROLL AVENUE, CHICAGO



The WALLMARK of Quality

Next time you have painting or repainting to be done, investigate Hockaday's splendid record. See that you get a white collar paint for a white collar job. Write, now, for the free booklet, "Paint Mileage."

HOCKADAY
THE WASHABLE PAINT FOR ALL INTERIORS

(Concluded from Page 136)

of a history textbook, has instituted a damage suit against the special corporation attorney who secured and compiled the material for the charges of lack of patriotism in the school-history texts.

The ex-superintendent continues to live in Chicago, although he is said to be spending his time lecturing over the country. Newspaper reporters interviewed him as he stepped off the train last week on his return from a lecture tour. They have quoted him as follows:

"I have been out spreading the gospel of America First—the real America first—which is citizenship."

Asked about his suit against the mayor, he is quoted as saying: "I don't care a red cent about the $250,000, but I do hope to accomplish something for the protection of my profession. It is an age-old trick of the politician to attack the schoolmaster. He thinks he can say anything he chooses to the educator without risking so much as a reply. In this suit I am seeking to find out if a judicial body cannot establish that the position of an educator is as worthy of respect, say, as a public utilities magnate."

On the other hand, the mayor is reputed to be planning to ask for a Congressional investigation when the suit comes to trial.

At any rate, the matter is now outside the boundaries of the school system. It is now likely that a new superintendent will shortly be appointed.

A Custodians' Association

The Los Angeles City School Custodians' Association is an organization composed of those who have charge of the school buildings and is the oldest and most prosperous association of its kind in the state. The purpose of the association is to help its members by a discussion of the various ways of doing the work assigned to them. It is also a social and benefit society. There is a sick benefit through which any member may receive sick benefits for a stated time during illness.

Similar associations have been formed in Santa Monica, Alhambra, Long Beach, and Pasadena. The officers of the Los Angeles association are: President, Mr. Swift of the Roosevelt High School; secretary, Mrs. Viola Casa.

Western Salary League at Seattle

A Western Salary League has been organized at Seattle, Wash., with Mr. H. B. Glover as chairman, and Miss Frances McCray as secretary. The purpose of the league is to make a study of salary conditions, with a view of benefiting the teachers in small, out-of-the-way places, as well as those in the larger cities. Three organizations in Southern California, the Los Angeles High School Teachers' Association, the Los Angeles Kindergarten Teachers' Association, and the Pasadena Teachers' Association, are allied with the League.

—Duncan, Okla. The school board has passed new rules governing the employment of new teachers. Under the rules, no married woman teacher may be employed in the future. Applicants for teaching positions must have completed one year of successful teaching experience before they may be employed.

Honor Supt. Susan Dorsey

Supt. Susan M. Dorsey of Los Angeles, Calif., was given the degree of LL.D., by Dean Kemp of the University of California, on March 23, in connection with the celebration of the sixtieth anniversary of founders' day. This is the third honorary degree to be conferred upon Mrs. Dorsey during the past few years.

NEWS OF OFFICIALS

—The board of education of Dunellen, N. J., has reorganzied with the election of Mr. C. D. Nonemaker as president, Mr. J. P. Faber as vice-president, and Mr. H. R. Cooke as custodian.

—Mr. Edwin C. Meservey has been elected president of the school board of Kansas City, Mo., succeeding James E. Nugent, who has retired after twelve years of service. Other officers elected were: Mr. Bryce B. Smith, vice-president; Mr. C. W. Ellendoerfer, treasurer; Mr. James B. Jackson, secretary; and Mr. H. G. Bierley, auditor.

—The school board of Rockland, Mass., has reorganized for the year 1928-29, with the election of the following members: President, Mr. C. A. Easton; secretary, Mrs. F. Gertrude Ames; Mr. John F. Gorman, member. Mr. Gorman succeeds Mr. P. J. Ford as a board member.

—Mr. Joe Chitwood has been elected as president of the school board at Anacortes, Wash. Mr. Chitwood is the first product of the local school system to be elected to the school board. He is a foreman in one of the local industrial plants.

—The school board of San Francisco, Calif., has created the office of secretary, with the appointment of Mr. H. M. Monroe to the position. Mr. Monroe will act as secretary to the board and as assistant to Mr. David P. Hardy, deputy superintendent in charge of business affairs.

Mr. Monroe was vice-principal of the High School of Commerce prior to his appointment. He was for three years advertising manager of the W. P. Fuller Paint Company, and purchasing agent for the California Paint Company. Mr. Monroe has both the professional qualifications and the business experience which fit him for the position of secretary of the board.

A LOUISIANA PARISH SCHOOL BOARD

(Continued from Page 48)

idea of centralization of authority and responsibility. Our board is made up of men and women representing various interests of the community, whose duty it is to select a competent, well-trained official in the capacity of superintendent, who looks to them for guidance in all matters of a purely business nature, but who is given a free hand in matters of a professional nature. In other words, the board feels that the superintendent is the executive officer of the board and in justice to him he should be given broad discretionary powers and should receive the cooperation of the school board in the discharge of his duties. Whenever the school board cannot have this confidence in its superintendent, it feels that the two should dissolve partnership and a new superintendent should be employed with whom the board can work harmoniously.

Our sole aim is to serve the people of the parish most effectively by maintaining as high standards in the schools of the parish as is possible with the funds in hand. We believe that whatever success we may have had in the administration of the schools of East Baton Rouge parish can be attributed largely to the fact that we have adopted the wise business policy of centralization of authority and responsibility and have adapted it to our own particular needs.



Here is a

Toilet Tissue

That Gives Real Satisfaction Always

NO-WASTE toilet tissue is favored by institutions and large users because it is reliable, uniform, sanitary under the most exacting tests and, because made in large quantities, is reasonably priced.

Large buyers of toilet tissue will be well rewarded if they thoroughly investigate NO-WASTE before making contracts.

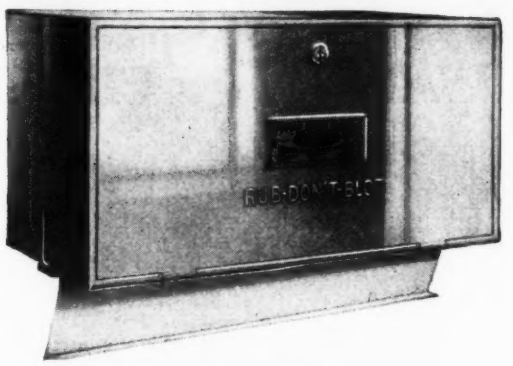
The cabinets provided for dispensing NO-WASTE toilet tissue are of the simplest possible construction, having no wheels, springs or other mechanism to get out of order. The tissue is drawn from them two sheets at a time, the slight resistance involved preventing needless and wasteful withdrawal. The soft, absorbent character of the tissue, and the automatic economy necessitated by the cabinet, effect savings.



NO-WASTE TOILET TISSUE

Distributed by leading wholesalers in all principal cities. Details and name of nearest distributer will be mailed on request.

National Paper Products Company
CARTHAGE, N. Y.
NEW YORK - CHICAGO - SAN FRANCISCO - LOS ANGELES - SEATTLE



This Cabinet Dispenses

"PUBLIC SERVICE" PAPER TOWELS

Economically—One Towel at a Time

SO simple in construction that it cannot get out of order.

One hundred and fifty towels are locked in the cabinet and are pulled out one at a time until the cabinet is empty.

PUBLIC SERVICE paper towels are made with a patented hem [lower edge folded over] that keeps wet fingers from tearing them.

They are made of purest selected wood pulp and pass every scientific sanitary test.

Present users of cloth towels should consider the economical possibilities of paper towels. Those already using paper towels will be well rewarded if they investigate PUBLIC SERVICE paper towels before placing contracts.

Full information, including samples of cabinets and towels, and address of your nearest supplier, will be gladly sent on request

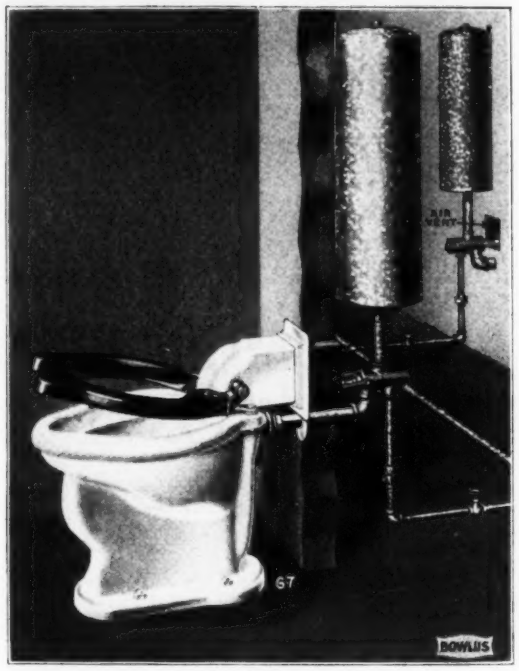
National Paper Products Company
CARTHAGE, N. Y.
NEW YORK - CHICAGO - SAN FRANCISCO - LOS ANGELES - SEATTLE



Public Service paper towels bring a smile of satisfaction to the face of the user

Public Service PAPER TOWELS

JEWEL AUTO PNEU MATIC WATER CLOSETS



Where Carelessness is an Ever-Present Problem



WELL meaning, yet thoughtless youngsters rushing in at recess, hurrying to reach classrooms or scampering for home—no wonder failure to flush toilet bowls is a common occurrence in schools.

Jewel Closets flush automatically at every use. Depression of the seat fills the tank. Release of pressure flushes the bowl. Chance carelessness is eliminated.

Ventilated Bowls

Jewel Ventilated Closets safeguard child health. Air is withdrawn from the toilet room through the bowl into an air-tight utility room from whence it is removed by an exhaust fan. Many States now require this type of school installation. Complete information on request.



Send for New Catalog

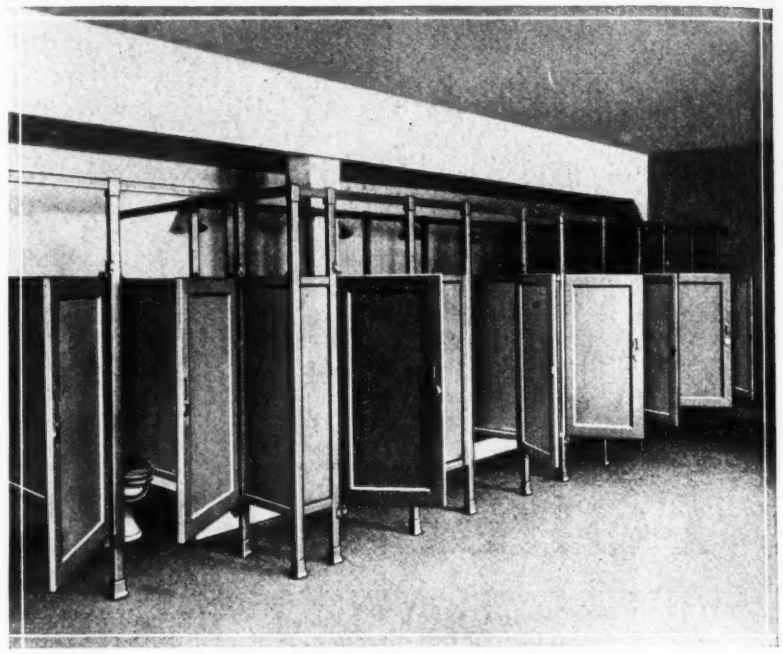
The beautiful new Jewel Catalog, illustrated in colors, shows the complete line of Jewel Closets, gives installation diagrams and other useful information. Write for it today.

The Bowlus Mfg. Company

Springfield, *Ohio*

FERRO METAL TRADE MARK

Ferrometal Partitions



A toilet, shower and dressing room combination of FERROMETAL PARTITIONS.

The above combination taking care of three distinct requirements is but one of the many types of installations possible with "Standardized" Ferrometal Partitions.

PREDOMINATING FEATURES OF FERROMETAL CONSTRUCTION

A perfected and standardized product, the result of many years experience.

The last word in sanitation, no open unsightly seams, ginger-bread moulding, or exposed unfinished construction.

Full panel interlocking construction in every sense of the word, all joints welded.

Sound proof doors constructed of lead coated plate, no metallic noise from slamming doors.

The best steel possible for the purpose is used — Keystone Rust Resisting Copper Bearing Steel.

Hardware is heavy cast brass nickel plated.

Erection a simple matter, no cutting or drilling in the field, or complete erection service when desired.

WE MAINTAIN A COMPLETE ENGINEERING AND SERVICE DEPARTMENT, SUGGESTED LAYOUTS AND ESTIMATES SUBMITTED.

COMPLETE CATALOGUE NO. 14 ON REQUEST

FERRO METAL TRADE MARK

LITTERER BROS. MANUFACTURING CO.

3022-3032 North Rockwell Street
CHICAGO -:- -:- ILLINOIS
Representatives in all principal cities

Tacoma's 44 Schools Use



CAR-NA-VAR
TRADE MARK REG. U.S. PAT. OFF.
THE PERFECT FLOOR TREATMENT

"The results have been so satisfactory that the Board of Directors has authorized the use of this finish for all hardwood floors throughout our system of forty-four schools."

Yours truly,
A. I. MATHEWS,
Supt. of Properties.

This is just an indication of the acceptance accorded Car-Na-Var as the perfect floor treatment.



This shows the ease with which Car-Na-Var is applied. Unequalled for wood, terrazzo, mastic, unglazed tile, cement, linoleum, or cork flooring.

Here are six distinct advantages derived from the use of Car-Na-Var:

1 Cuts maintenance costs.

2 Car-Na-Var is non-slippery; a safe floor.

3 The hard lustrous finish is durable.

4 Easily applied with a mop.

5 Quick drying — floors ready for traffic in one hour.

6 Car-Na-Var treated floors are sanitary.

Order a trial container today

Guarantee

We guarantee Car-Na-Var to give satisfaction. After a fair trial, if you feel that you are not satisfied with the results obtained, it is only necessary to notify us. If we cannot help you to overcome your difficulty to your entire satisfaction, you may return the unused portion of the Car-Na-Var at our expense and we will credit you for the full amount.

CONTINENTAL CHEMICAL CORP.
WATSEKA, ILLINOIS

Please ship us at once by.....in accordance with your guarantee, F.O.B Watseka, Ill.:

1Half Drum (55 Gal.) Car-Na-Var Natural @.....$2.50 Per Gal.

1 Lambswool Mop (For Applying).....$1.75 Ea.

Signed.....

Dept. S.J. .....

THE FUNCTIONS OF THE ELEMENTARY PRINCIPAL

(Concluded from Page 54)

tion of adequate physical plant. Executive functions he defines as the organization and the administration of the school. He mentions in this connection: making the program, getting it running, application of time allotment; assignment of teachers; classification and progress of pupils; caring for the physical well-being of pupils and teachers; management of the physical plant; making the budget; maintaining the school spirit; management of extra-curricular activities; administration of attendance; maintaining leadership in the community; management of the office. He defines the supervisory function as the improvement of teaching, and in this connection he mentions: the application and use of the course of study; supervision of methods, such as the use of the demonstration lessons, projects, library, and personal conferences; establishment and maintenance of professional-growth program for himself and his staff.

Cubberley's analysis. Ellwood P. Cubberley[1] treats the duties of the principal under organization duties, administrative duties, supervisory duties, and social duties.

McMurry's classification. Professor F. M. McMurry,[2] in the New York Survey Report, says: "The manifold duties of principals should be classified into three groups: (1) those that are purely clerical; (2) those that concern instruction more or less, but that largely concern routine, and, therefore, require little special ability; (3) those that require the technical ability of the educational specialist." It is highly important that the principal make an analysis of his duties to determine those which can be reduced to routine and delegated to clerical assistants. In case no clerical assistance is provided, it is an open question whether or not such duties should be farmed out to the teachers. Reavis says that such practice is "bad and should be discouraged, because it is usually done at the expense of time which belongs to instruction."

The fact that different writers have almost invariably used different plans of classifying the functions of the elementary principal indicates the difficulty of formulating a fully satisfactory analysis. The importance of the position is stressed by all writers and the difficulty of living up to the standards set is great. How the principal can be a good general manager of one of the most important institutions in society; how he can perform his administrative duties with wisdom and with loyalty to his superior officials; how he can best organize his school under the limitations necessarily involved; how he can perform his judicial and executive functions justly, wisely, and democratically; how he can perform these necessary duties and still devote his major efforts to the growth and improvement of the teachers under his direction—all these matters are problems which deserve very careful study and planning. The following analysis is offered as containing the most important suggestions in the various analyses of the principal's duties, and assumes a status of professional leadership with adequate assistance.

1. Duties related to general management, organization, and administration of his school.

2. Supervisory duties in relation to teacher improvement in classroom organization, control, and instruction.

3. Duties involving participation for the benefit of the system or in relation to educational contributions.

4. Direction and supervision of routine, of clerical work, and of details which may be delegated to others than educational experts.

5. Duties related to community activities.

[1] *The Principal and His School*, 1923.
[2] *Elementary School Standards*, p. 210.

THE PURIFICATION OF WATER WITH SPECIAL REFERENCE TO SWIMMING POOLS

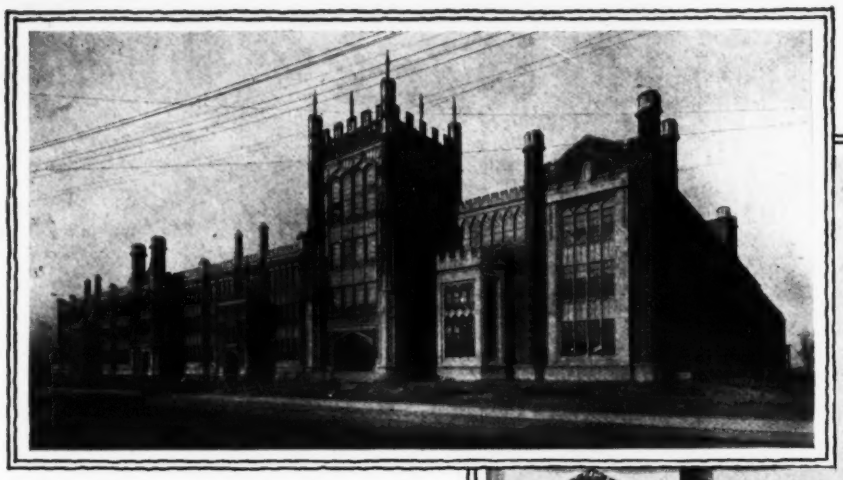
(Continued from Page 56)

back washing the filters, is the replenishing of the reagents at proper intervals, the reagent pumps being synchronized automatically with the flow of the water. The daily blowing down of the sedimentation chamber is, of course, required.

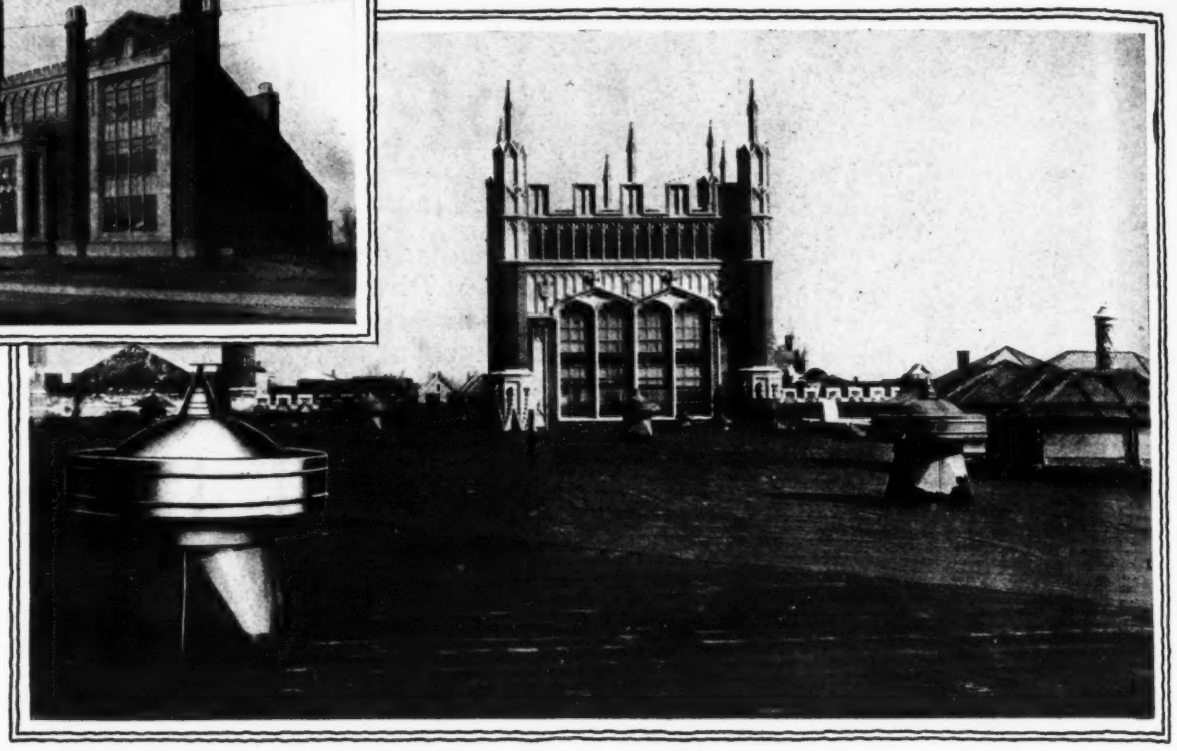
The Mechancial Shoulders of a Filter

The filter has never failed to command the writer's respect. From so simple a piece of apparatus one can obtain such amazing results! But the filter must be given a chance. Properly operated, by one familiar with its possibilities and limitations alike, most any sort of filter can be made to earn its "salt." But "most any sort of filter" requires an infinitude of care and attention, qualities for which the age has neither the time nor the taste. In the days when Wanklyn and Rideal, abroad, and Hazen and Fuller, in America, were making history with the filter, its reputation became established. After the fashion of popular appraisal, its results were accepted; but its drudgery was gradually rejected by an advancing age, that would place drudgery where it belongs, on mechanical shoulders. We were long in devising mechanical shoulders for the small filter and the time came when it fell into disrepute. But from an age so keen in its mechanical perceptions, so wedded to automatic methods, the filter could not long escape and such a plant as we have just described is the efficient filtration plant of today. Its "mechanical shoulders" embody the following:

a) Continuous introduction of the coagulant in measured quantities.



JUNIOR HIGH-VOCATIONAL SCHOOL, BAYONNE, NEW JERSEY
DONALD G. ANDERSON, ARCHITECT,
717 Broadway, Bayonne, N. J.



"GLOBE"

Ventilation For School Buildings

SO efficient have "GLOBES" proved themselves to be that many architects look upon them as the standard ventilation for schools. Thousands of successful school installations prove this to be true.

The ventilators on the Junior High School are sturdily constructed of heavy weight copper, making them practically everlasting. They are absolutely storm-proof and trouble-proof.

There is no upkeep expense and there are no moving parts to get out of order or to require lubrication.

"GLOBE" Ventilators furnish efficient ventilation for schools of all sizes, from the smallest frame portable school to the largest permanent building, such as pictured here. Your inquiries relative to the ventilation of any type of school will receive a prompt reply.

GLOBE VENTILATOR COMPANY
DEPARTMENT J TROY, NEW YORK

b) Positive means for thoroughly mixing the coagulant into the water.

c) Positive provisions for the complete precipitation of the coagulant.

d) Time and temperature conditions so related as to complete the precipitation of the coagulant *before* the water enters the filter.

e) Properly proportioning the filtering area so that the rate of filtration is correct for the kind and quantity of suspended matter to be removed (different kinds of suspended matter demand different rates of filtration).

From such a plant we may expect a water perfect in physical qualities; that is, free from all suspended matter, colloidal or otherwise, colorless, save where the color is in solution, and its bacterial condition should be from 50 to 75 per cent better than the raw water. It will answer all the purposes of the swimming-pool filter and, in connection with proper sterilizing measures, provide a much more sanitary water, when the word is considered in its full sense, than the vast majority of swimming pools contain today.

Filtration, at its best, has its limitations. Some waters, found in the south and along the Atlantic seaboard, contain large quantities of colloidal humus matter, together with sodium carbonate in solution (probably water that has seeped through beds of natural zeolite and percolated through peat bogs). Such waters run very high in color and are particularly hard to coagulate. Here continuous filtration can only hope to remove matter held in ordinary suspension, but we shall recur to such waters later.

Bacterial Purity Impossible

For bacterial purity, filtration cannot be depended upon. Even the impervious, porcelain filters of Pasteres and Chamberland are safe only in highly skilled hands, while their very construction precludes their use on a large scale. In addition to bacteria, we must always consider matter in solution. Here filtration avails us nothing; however, toxic matter in solution must be removed if *pure* water is the desideratum.

Most organic matter, actually undergoing putrefaction, is held in colloidal suspension, hence can be removed by proper filtration, but many of the products of putrefaction go into solution. These products are mostly toxic in character which, if taken into the system, place an added burden upon the already taxed eliminatory mechanisms of the body. It is also open to question whether the so-called filterable virus of some organisms, considered apart from the organism, if it so exists, is removed by filtration, such as we are here considering.

Filtration, then, is only one phase of water purification. Its possibilities and limitations must never be lost sight of, if we are to provide at once a complete and economical method of water purification.

(To be Continued)

THE JAMES F. HIBBERD SCHOOL, RICHMOND, IND.

(Continued from Page 64)

uated on the highest elevation of the site, and, incidentally, practically the highest elevation in the city, the building with its simple but effective design makes a most pleasing central point surrounded by a community of modest but well-kept homes. The approach from the street is by two walks curving around from a central entrance to the grounds, and encircling the central court which slopes up from the wall of native stone to the gymnasium steps.

Except for the practical-arts rooms and the gymnasium, all classrooms and corridors have the walls finished in a light buff. The finish coat of plaster was tinted to secure the color and troweled slightly rough. The effect is one of warmth as well as pleasant color. All woodwork is oak, with a lacquer finish, giving the effect of a rubbed finish. One of the charming effects is the cross corridor at the north end of the long wing. In this corridor, varied color slate laid in rectangular pieces with random joints has been used. All other corridor floors have a 9-foot center of battleship linoleum with concrete borders, and a cove base. In the entrances and gymnasium a rough texture of brick in varied light shades, with buff predominating, has been used. In the shower and dressing rooms the walls are of salt-glazed brick, with a plaster above the wainscoting.

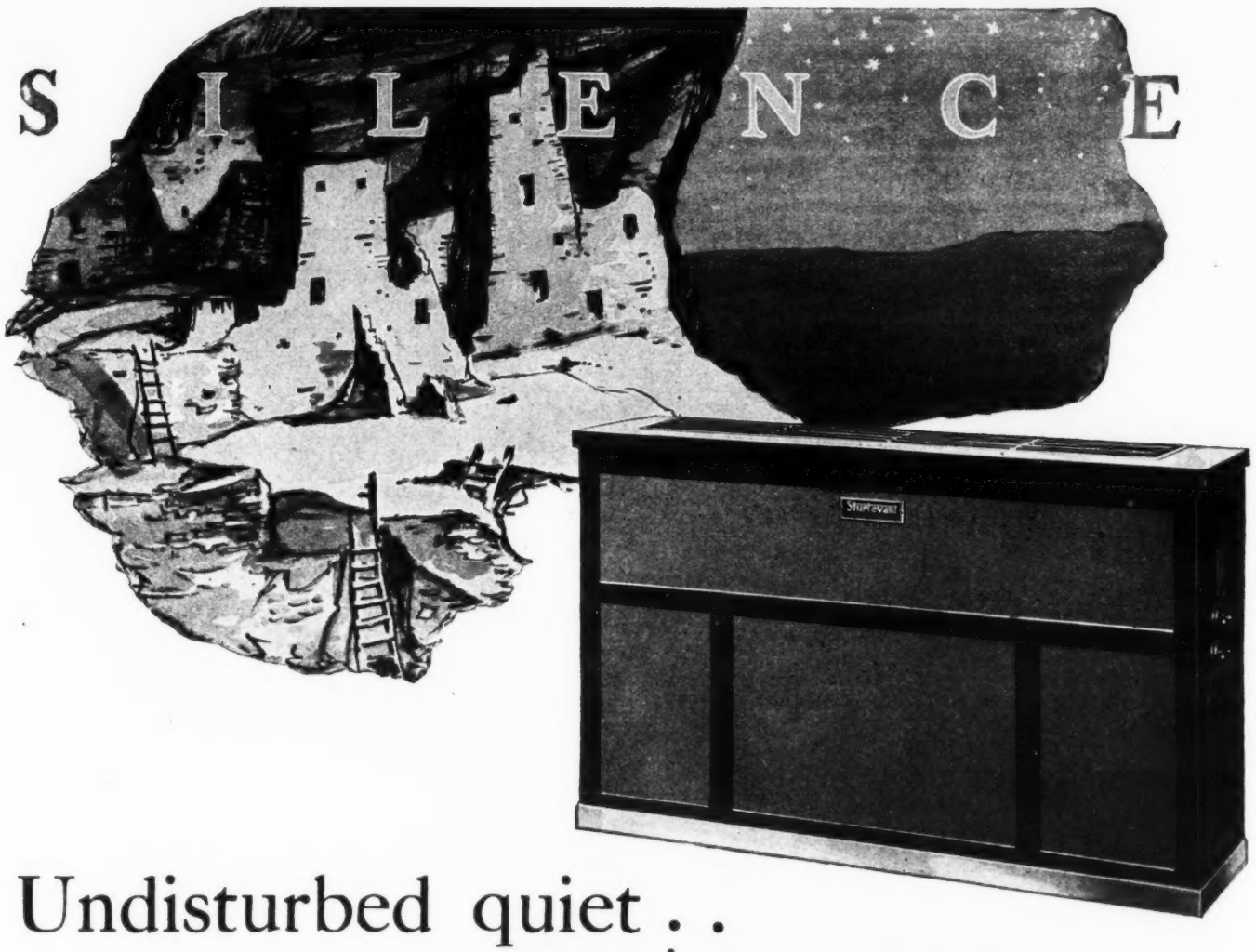
Ventilating and Heating

With the awning-type window, all the classrooms can be opened for direct fresh-air ventilation on the warm days in late spring and early fall. For weather when heat is necessary, we use a split system of heating and ventilating. The heating and ventilating plant is located in the basement, underneath the gymnasium. For ventilation, the air is drawn from an intake in the roof, through the air filters, across the vento coils, and then driven through the tunnel extending the length of the building under the corridors, to be distributed through ducts to each room. The ozone machine is located in the fan room, the ozone being introduced into the air stream as it passes into the tunnel.

After circulating through the classroom, the air passes under the wardrobe doors and out through the outlet near the ceiling of the wardrobe. After leaving the classrooms, the air travels back through ducts in the attic, to pass out the exhaust stack or to be recirculated after mixing with twenty to forty per cent fresh air, refiltering, and with the introduction of more ozone. The system is arranged to admit the use of all fresh air or recirculation as desired. Provision is made, of course, for the direct exhaust of the air from toilets and dressing rooms.

The heating system is the direct-steam type, with thermostatic regulation. Two boilers of

(Concluded on Page 144)



Undisturbed quiet . .

no operating sound comes from the "Silent" Sturtevant

TURN the control of the "Silent" Sturtevant Unit Ventilator to the starting position. Immediately, within the attractive metal cabinet a powerful fan and motor begin their work. But so smoothly and quietly do they run that you cannot hear the slightest operating sound.

Many months of designing and experimenting are behind this Sturtevant Equipment. All of this company's research facilities were enlisted to solve the problems its development presented. Fans and motors, specially designed for silent operation, were evolved.

There are many more pertinent facts in our Catalog No. 344-A. You will be sure to find them of interest. The nearest office below would welcome your request for a copy.

B. F. STURTEVANT COMPANY, HYDE PARK, BOSTON, MASS.

Atlanta	Camden	Cleveland	Hartford	Minneapolis	Rochester
Birmingham	Charlotte	Dallas	Indianapolis	New York	St. Louis
Boston	Chicago	Denver	Kansas City	Pittsburgh	San Francisco
Buffalo	Cincinnati	Detroit	Los Angeles	Portland	Seattle

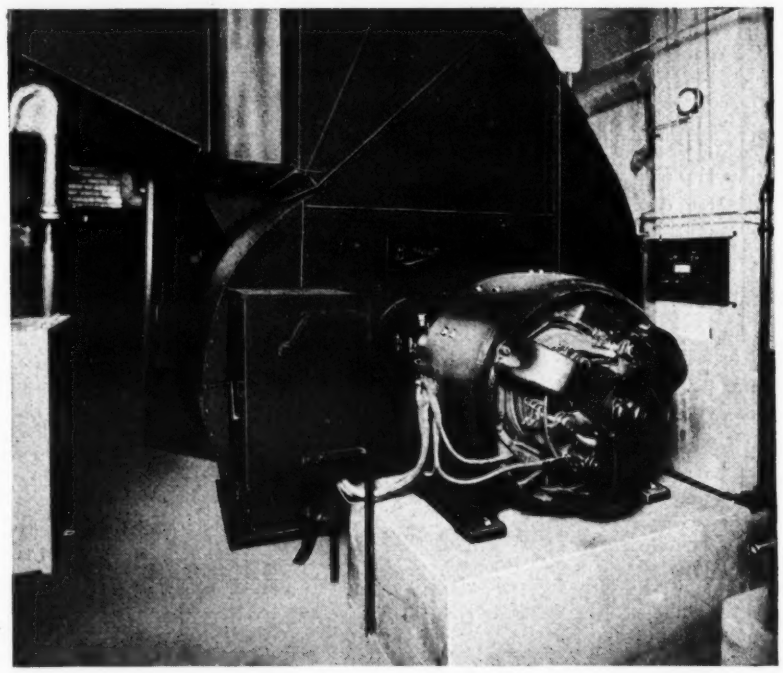
Washington, D. C.

Canadian Offices at: Toronto, Montreal and Galt, Ont. Also Agents in Principal Foreign Countries.

Sturtevant REG. U.S. PAT. OFF. *the Silent Unit Ventilator*

Provide the system that helps—not hinders—the pupils' progress

"There is no problem connected with the comfort of school children which is quite as important as the heating and ventilating of schoolhouses," says Prof. N. L. Engelhardt of Teachers College, Columbia University, with reference to ***"conserving human energy, reducing the amount of nose and throat trouble, and maintaining a classroom condition in which children can work with normal production without interfering with the status of their health."***



Buffalo-Carrier central heating and ventilating systems provide the proper circulation of pure washed air, correctly tempered and humidified. And they do this consistently, from morning till night, without burdening busy teachers with extra worries and responsibilities.

Write for Booklet 422

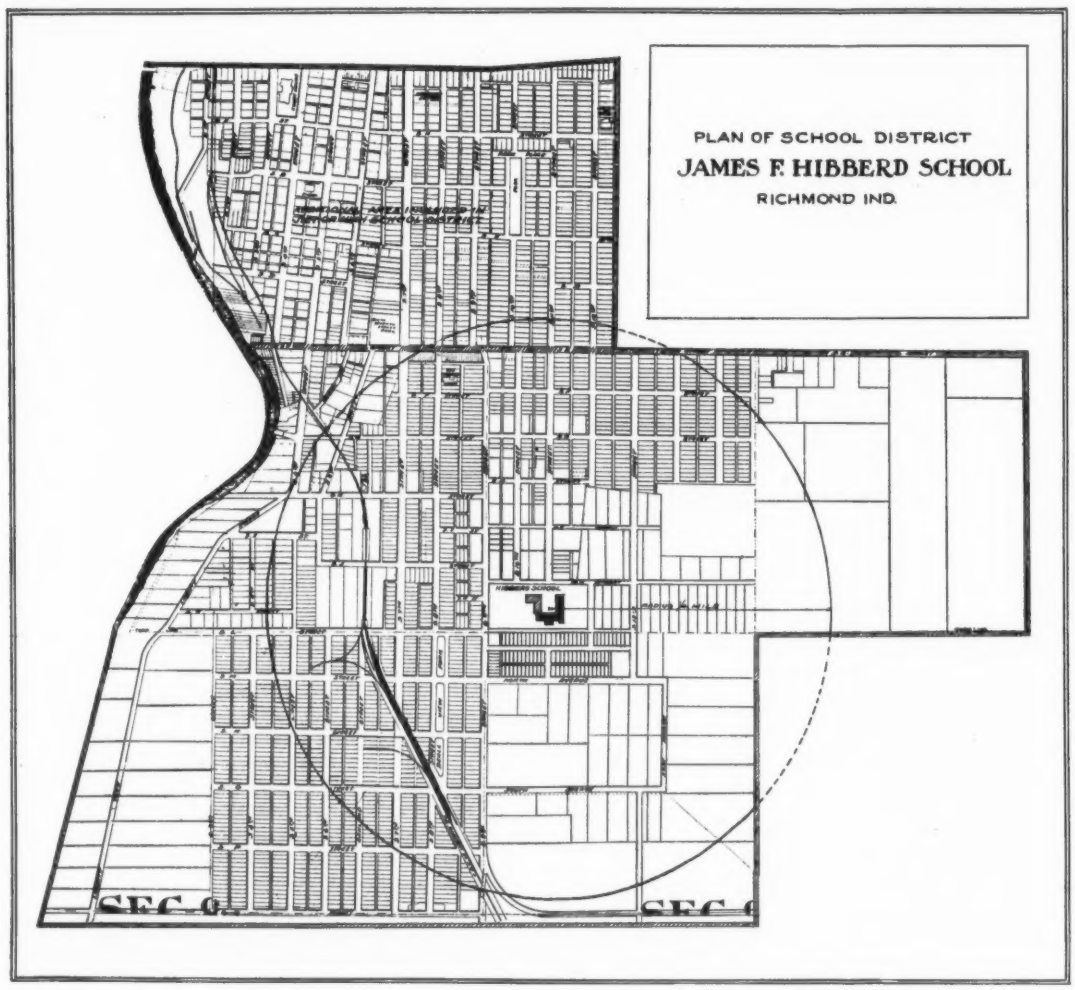
Buffalo Forge Co.

186 Mortimer St. Buffalo, N. Y.

In Canada—Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

(Concluded from Page 142)

13,000 sq. ft. capacity furnish the heat. In the boiler room are also located the vacuum cleaner and auxiliary heater for hot water. All electric and other service wires are brought into the building in buried conduit, eliminating unsightly poles. The fire-alarm system is controlled from the principal's office and provision is made for connection with the municipal-alarm system, whereby the alarm may be sent in automatically to the fire department headquarters.



Figuring a maximum capacity of 35 pupils per room for every room, which is not impossible, the building will, as at present constructed, accommodate 770 pupils. It has been planned to provide for an average of thirty pupils per room or a total of 660. On this basis the cost per-pupil accommodation, excluding site and equipment, is slightly over $350. If the cost of the site, all the contracts, the landscaping, the planting, and the equipment are included, or in other words, the plant complete ready to use, the cost per-pupil accommodation will figure approximately $412.

The contractors and amount of contracts for the building were as follows: General Construction, Roy C. Bryant of Franklin, Indiana, $164,284; Heating and Ventilating, M. A. Hawkes, Richmond, Indiana, $26,262; Plumbing, Freyn Brothers, Indianapolis, $15,898; Electrical, C. L. Smith Company, Indianapolis, $8,280; Lockers, John J. Tuite Company, Indianapolis, Indiana, $1,346.06. The landscape plans were prepared by Donald Johnston, of Indianapolis.

THE WORKING SCHEDULE OF THE SUPERINTENDENT OF SCHOOLS

(Continued from Page 66)

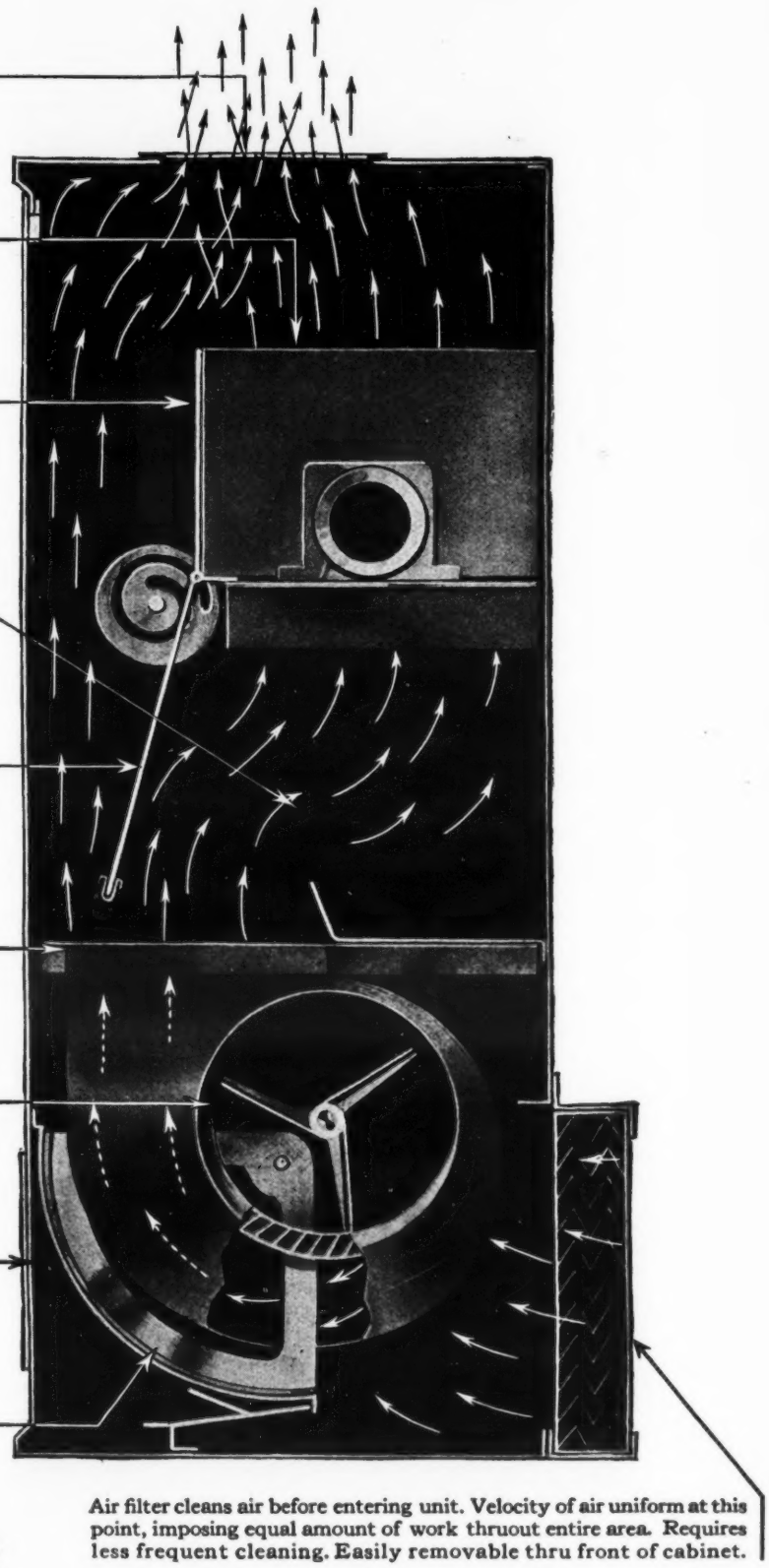
of schools should study his own school system, with the consensus of opinion of other superintendents in schools similar to his own, and with those ideas of experts on school administration, he should develop his own time schedule. The schedule should consider each function in relation to its importance, and the proper amount of time to be allotted to each. That is, the superintendent should budget his time in accordance with the best thought on the subject.

As stated, the judgment of the superintendents as a group agrees closely with the opinion of experts on administration as to what should

(Concluded on Page 146)

10 FEATURES OF THE NEW UNIVERSAL UNIT

THAT INSURE PROPER SCHOOL ROOM HEATING AND VENTILATING



Outlet grille, ½" lattice design. Prevents foreign matter from being thrown into unit. Air movement over entire area uniform.

Copper tube radiator with real thermal contact between tubes and plates. Rugged, capable of standing 125 pounds working pressure. Free from soldered, brazed, welded or packed joints. A radiator that will outlast the building.

By-pass chamber parallel to heating chamber. So located to guide column of cool air across currents of warm air when mixing, and guide cool air away from room occupants when completely by-passing.

Large space permits equal distribution of air, resulting in uniform heating over entire area of radiator.

Temperature control damper operating over wide area results in fine control of temperature and graduated action of damper.

Motor and fan assembly with three steel ball point mounting results in rigid metal to metal contact, responsible for the enduring use of alternating current motors.

Sirocco type aluminum multiblade double inlet fan. No greater efficiency known. Volume regulators in discharge outlet permit precise regulation of air.

Recirculating grille near floor results in quick heating. Coldest air enters unit first. Permits circulation of air thru unit when fans are not being operated.

One-piece aluminum inlet and recirculating damper with felt damper stops reduce possibility of air leakage by reducing number of parts. It is possible to recirculate in a unit only 14 inches wide.

Air filter cleans air before entering unit. Velocity of air uniform at this point, imposing equal amount of work thruout entire area. Requires less frequent cleaning. Easily removable thru front of cabinet.

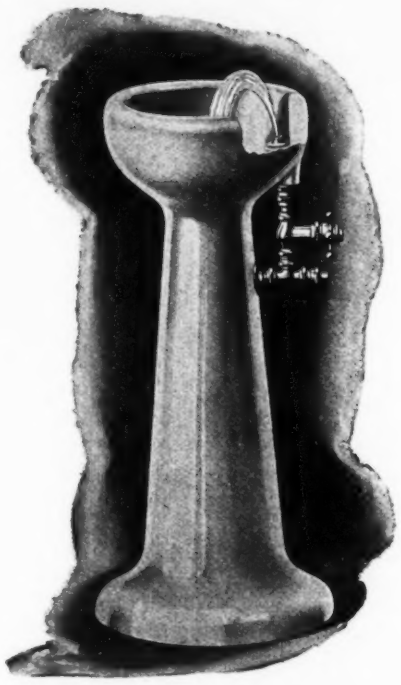
COMPLETE information, prices and technical data on the new Universal Heating and Ventilating Unit can be obtained from American Blower branch offices, one of which is located in each of the principal cities, or by writing direct to the factory.

AMERICAN BLOWER CORP., DETROIT, MICHIGAN
CANADIAN SIROCCO CO., LTD., WINDSOR, ONTARIO
BRANCH OFFICES IN ALL PRINCIPAL CITIES

American Blower (737)

"Sirocco" VENTILATING, HEATING, AIR CONDITIONING, DRYING, MECHANICAL DRAFT
Manufacturers of all Types of Air-Handling Equipment — Since 1881

The Fountain of Health



In every school, plenty of clean, fresh drinking water should be quickly available. Rundle-Spence Vertico-Slant Fountains are the most practical for this purpose. The wealth of health flows in the water from these bubblers.

Lips can't touch the R-S nozzle. The slight slant stream prevents water from falling back upon the jet. All who drink must automatically obey the law of drinking sanitation.

The R-S line includes Sanitary Drinking Fountains (in models for all school requirements), Bath and Plumbing Fixtures and Supplies. Write for catalog with complete information.

RUNDLE-SPENCE MFG. CO.
123 Fourth St., Milwaukee, Wis.

RUNDLE-SPENCE



C 92

Handsome vitreous china one piece fountain. Combines all the conveniences of the vertical stream with the special slanting stream feature. Glass or cup may be easily filled from it.

C 147

A pedestal fixture of galvanized pipe with extra heavy vitreous china bowl and vertico-slant stream. An extra strong fountain for the playground.



(Concluded from Page 144)

be the ideal time distribution. Yet, in actual practice, there is wide variation from this ideal time allotment. What are the reasons for this?

The writer has worked out the correlations of the superintendents' experience and training with their actual and theoretical time distributions. These correlations were so low that we can say without a great deal of doubt, that the amount of experience or professional training has no effect either on the superintendent's actual time distribution, or on the allotment he thinks it should be. The fact that the ideal allotment of time according to the superintendents agreed so well with that of the professors of administration leads to the conclusion that the source of the discrepancy must be sought outside of the training or experience of the superintendent himself. That is, the superintendent's time distribution on the average would approach the ideal time allotment if it were not for circumstances beyond his control.

In other words, the superintendent knows how he should spend his time, but owing to existing conditions, he cannot follow his own judgment. The powers beyond the control of the superintendent, namely, boards of education, and the public in general, do not know how he should spend his time, and hence they demand a time schedule entirely out of line with that which would make for higher efficiency in the administration of the schools.

An attempt might be made to explain the fact that superintendents spend too much time on the more routine functions of teaching and clerical duties, at the expense of the function of supervision, which takes less skill on these grounds. They may give as the reason that the superintendent does not know how to supervise, and so spends his time on the minor functions. It is reasonable to assume, however, that the more professional training the superintendent has, the better able he will be to supervise classroom instruction. Since the study showed that the amount of professional training of the superintendent does not affect the amount of time he spends on supervision, it is evident that even though he knows how to supervise, he does not spend enough time on this important function. Hence, uncontrolled conditions as explained, must be the main reason for the superintendent's unbalanced time schedule.

The superintendent should be paid for his expert knowledge along the line of the larger school problems, and not for his ability to do the routine duties connected with the school system. When the public realizes the relative importance of the functions of the school superintendent, then and only then will the schools be placed on the same basis as the other large industries of the country. That is, when scientific management carries over from the business world into the educational world, an impetus will be given to this field which will have a marked effect upon its efficiency. Before this ideal can be attained, a great deal of research must be made. Much time must be given to the development of "the one best way" in the field of school supervision. This research must come largely through the superintendents themselves, and the publicity which is necessary for its successful operation must come in a large measure from the same source.

CALIFORNIA SCHOOL BUSINESS OFFICIALS FORM ORGANIZATION

The Association of Public-School Business Officials of California is the name of the newest state school organization of California, which was organized on March 23, at the close of a two-day convention of business representatives of California school systems at Oakland.

The new association will consist of officials directly connected with the business administration of public schools in the state, including school trustees and directors of boards of education. The objects of the association are to study business functions of school departments, to standardize these functions so far as possible, and to actively cooperate with superintendents, principals, and teachers' organizations for the welfare of children in the schools.

Speakers on the convention program were Mr. F. M. Hunter of Oakland; Mr. J. W. Edgemond, secretary of the Oakland schools; Mr. David P. Hardy, deputy superintendent of the San Francisco schools; Mr. W. J. Cooper, state superintendent of public instruction; Mrs. Susan Dorsey, superintendent of schools of Los Angeles; Mrs. Daisie Short, member of the state board of education; Mr. Donald B. Rice, business manager of the Oakland schools, and Mr. W. E. Record, business manager of the Los Angeles schools.

AN EDUCATIONAL INDEX

Under the title of Loyola Educational Index, The Loyola Press, 28 North Franklin St., Chicago, has begun the publication of a bimonthly cumulative index to educational periodicals. The booklet indexes articles which have appeared in 97 periodicals published in the United States and Great Britain. Each article is given a threefold entry according to title, author, and subject.

It is planned to issue the material in an annual volume. A limited number of educational books is separately indexed.

The subscription price to the new publication is to be $15 per year.

NEW ARCHITECTURAL FIRM

Benjamin A. Horn and R. C. Sandberg have announced the formation of a partnership for the practice of architecture, which will be located at 506 Central Trust Building, Rock Island, Ill.

Mr. Horn began his professional practice in Rock Island ten years ago, as a member of the firm of Cervin & Horn, architects. He is a graduate of the University of Illinois and was formerly employed in a number of architectural offices in Chicago and the Tri-cities.

Mr. Sandberg who came to the Tri-cities in 1920, has had ten years' experience in Chicago. Previous to opening his own office, he was employed by Cervin & Horn, and by Clausen, Kruse & Klein. During the last year he has conducted a private practice in Rock Island.



ARCHITECT
MELVIN S. KING, SYRACUSE, N. Y.

HEATING CONTRACTOR
THOS. E. GILDEA, SYRACUSE, N. Y.

Heatovents For This New Up-to-Date Equipped High School

THIS School District is proud, and rightly so, of their new Senior and Junior High School. It is a noble structure and a monument to the steady advancement of education.

It is a notable fact that Heatovents were installed to take care of the heating and ventilating requirements of this school. The basis for the school board's choice of Heatovents was their up-to-dateness in design, construction, economy in cost, upkeep and efficiency in service.

Heatovent, the unit system of heating and ventilating, is up-to-date because all the latest good points of other ventilation have been combined in it and all the inferior have been eliminated. It is as low in first cost as a central fan system and costs less to keep up because it requires less electric power and steam. And lastly, it is more efficient because it can be adjusted to eliminate heating and ventilating of unoccupied rooms.

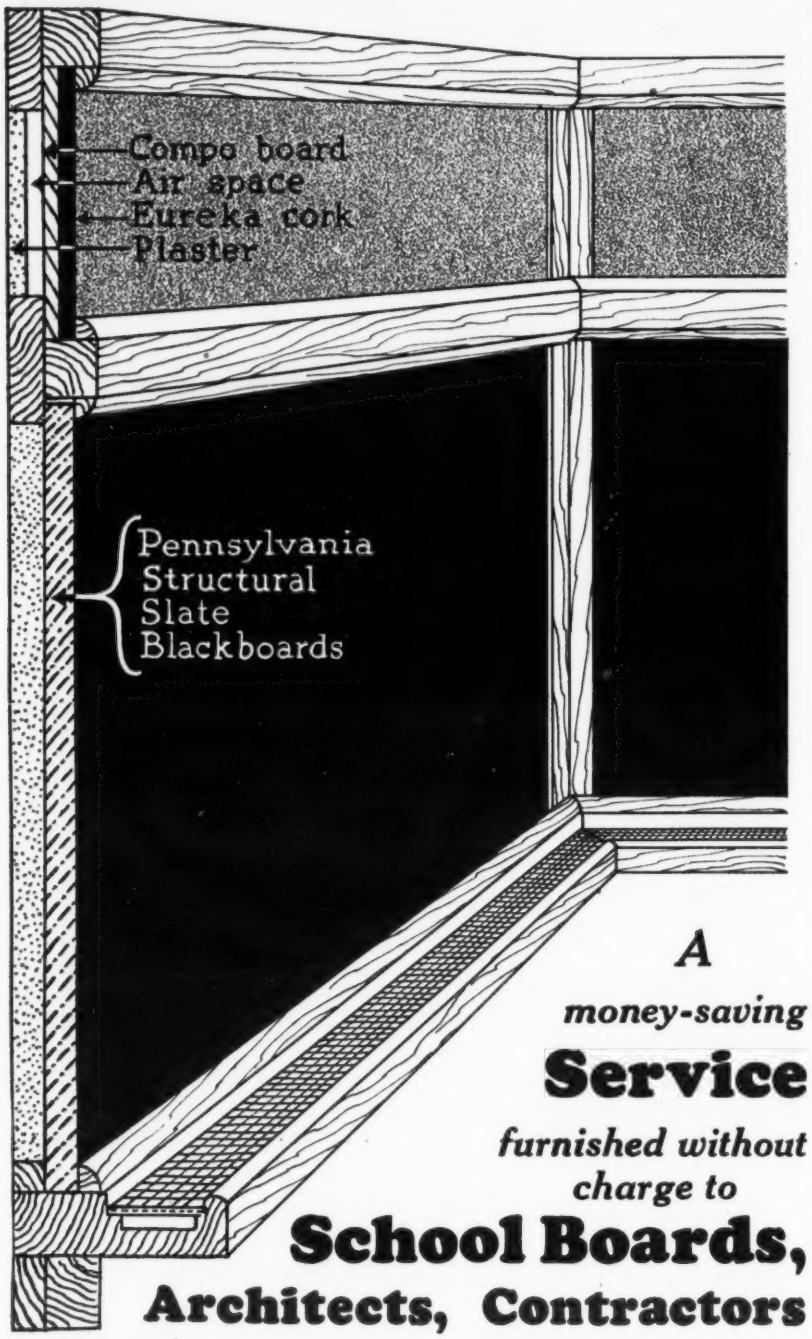
Investigate further into Heatovent features and you will be impelled to specify them for your schools.

THE BUCKEYE BLOWER CO.

COLUMBUS, OHIO

BRANCH SALES AND SERVICE OFFICES

Atlanta, Ga., 254 Peachtree St.
Baltimore, Md., 2126 Edmondson Ave.
Birmingham, Ala., 321 Brown-Marx Bldg.
Boston, Mass., 260 Tremont St.
Buffalo, N. Y., 321 Jackson Bldg.
Chicago, Ill., 401 Transportation Bldg.
Cleveland, Ohio, 204 Plymouth Bldg.
Denver, Colo., 1226 California St.
Detroit, Mich., 400 Penobscot Bldg.
Hempstead, L. I., N. Y., 2nd National Bank Bldg.
Indianapolis, Ind., 3115 N. Central Ave.
Kansas City, Mo., 1101 Pioneer Trust Bldg.
Los Angeles, California, 1824 S. Hope St.
Milwaukee, Wis., 409 Loan & Trust Bldg.
Minneapolis, Minn., 416 Essex Bldg.
New York City, 1400 Broadway.
Newark, N. J., 403 Military Park Bldg.
Pittsburgh, Pa., 709 Columbia Bank Bldg.
Portland, Ore., Security Bldg.
Salt Lake City, U., 402 Scott Bldg.
San Francisco, Calif., 746 Sansome St.
Syracuse, N. Y., 324 Union Bldg.
Toronto, Canada, 21 River St.
Youngstown, Ohio, 1101 Realty Bldg.



A

money-saving

Service

furnished without charge to

School Boards, Architects, Contractors

THE Service Department of this organization has published complete standard specifications and setting instructions for the installation of Pennsylvania Structural Slate Blackboards and Eureka Cork Bulletin Boards.

If these are followed when your school is built, our Blackboards and Bulletin Boards are *guaranteed indefinitely.*

Other Pennsylvania Slate Products:

Wainscoting
Stair Treads
Interior Wall Base
Toilet Partitions
Shower Stalls
Sanitary Urinals
Laboratory Sinks
Lintels
Roofing Slate

Fill Out and Mail Coupon for Full Information

→ Pennsylvania ←
Structural Slate Company
First National Bank Building **Easton, Pa.**

(Check squares for information desired)

☐ Please quote on.....square feet of Pennsylvania Structural Slate Co. Blackboards, delivered to address below.

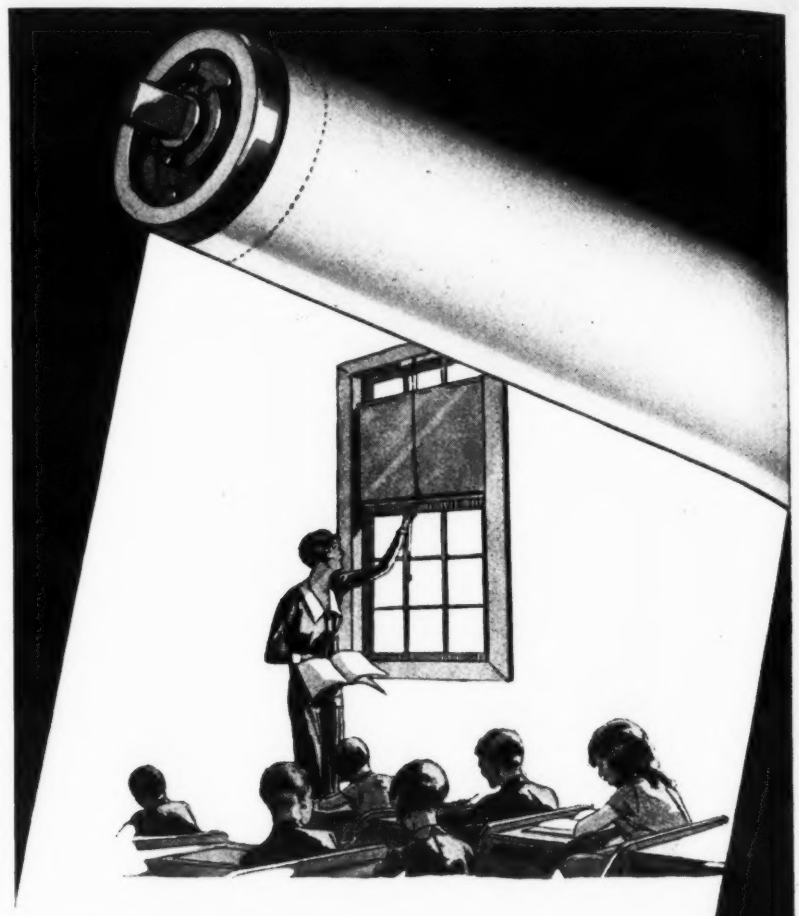
☐ Please quote on.....square feet of Eureka Cork Bulletin Board, delivered to address below.

☐ Please send copy of specifications and setting instructions for Blackboards and Bulletin Boards.

Name.....

Address.....City and State.....

☐ Please send Catalog H on other Slate Products.

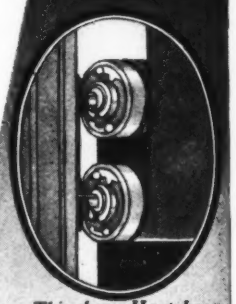


Don't Handicap Pupils with Poor Shade Equipment

SELECTING proper shade equipment for the schoolroom is just another of those important details apt to be overlooked. Yet foremost authorities agree that no other equipment adds so much to the pupils' comfort and efficiency as quiet, smoothly working shade rollers that carry durable, carefully finished shade cloths.

Make sure your shade equipment is made by Stewart Hartshorn. For sixty-eight years Hartshorn Shade Rollers have won a national reputation for durable service in schoolrooms, office buildings, public institutions—wherever hard usage demands shade rollers and shade cloths of perfect workmanship and quality.

STEWART HARTSHORN CO.
250 Fifth Avenue, New York City



This shows Hartshorn Double Bracket No. 87, designed to permit proper regulation of light and air. With Hartshorn Shade Cloths, these rollers are ideally suited for classroom use.

Hartshorn
Established 1860
SHADE ROLLERS AND WINDOW SHADE CLOTH

A SHADE IS ONLY AS GOOD AS ITS ROLLER

Extra Money for your School

Better Training for your Students

That's what an investment in a Clarke Vacuum Portable Sander means to your school.

You fulfill your duty both to taxpayer and student when you approve the requisition for the Clarke.



Saves Schools Money

IT SAVES taxpayers money because it cuts down actual expenditures. During vacations or week-ends, scratches and gouged school desk tops can be brought to satiny smoothness with the Clarke. One school saved $2,850.00 resurfacing desk tops alone—at the rate of 100 to 200 in eight hours. And it does equally valuable money-saving work resurfacing all woodwork, the floors, manual-training benches, and equipment in general.



This ***practical use*** of the Clarke in maintenance work is the positive evidence of its value in training the coming Craftsmen of America. Shall the boys in your school receive the benefits you and the Clarke can so easily and economically give to them?

Shall your school receive the benefits of improved desks, tables, benches, and equipment with the saving that pays for the Clarke over and over again?

School Boards Everywhere are approving Clarke requisitions

See page 81 in Bruce's 1928 Specification Annual. Drop us a line for special requisition blanks, special information, and helpful assistance. NOW is the time to get in line for early delivery.

Clarke Sanding Machine Co.
Dept. G-25, 3821 Cortland St., Chicago, Ill.
For 11 years, Originators, and Manufacturers of Portable Sanding Machines

POWERFUL - FAST CUTTING
CLARKE
VACUUM PORTABLE SANDER

Clarke Sanding Machine Co.
Dept. G-25, 3821 Cortland St., Chicago, Ill.
Please send me the actual facts on the Clarke Vacuum Portable Sander.

Name.....
Address.....
City..... State.....

Economic Stability and School Costs

To the Editor:

Some years ago *The School Board Journal* published two articles by me in which, though I contended that American public-school teachers are entitled to a fair share of the income of the Nation for their immensely important services, nevertheless, the argument that we are so rich that any amount of money is available is based on a false premise. Then it was common to assert that the Nation had an income of one hundred billions of dollars a year. I stated that the income was in fact much less than this.

During the past year I have been a college teacher of economics again and in the course of my teaching it has been convenient to examine all the latest books in my field. In particular I have read four books all published by responsible and reputable houses with the copyright of 1927, and the *highest* amount stated by any of them is seventy billions of dollars. This is arrived at by *doubling* the income shown on the books of business by estimating the amount of economic products that never get into the markets, such as consumption on farms by the families thereon and barter by neighbors. One of these books definitely sets the *cash income* as about thirty-seven billions of dollars. The *lowest* estimate for all items is sixty-three billions of dollars. The total cash income to farmers is ten billions, and all income is estimated at seventeen billions.

At the superintendents' meeting in Boston, one of the most respected of all American educators repeated the figures of one hundred billions and said that we could well afford to go beyond the two billions now spent. Immediately I wrote to him what I am now writing to you and suggested that he talk with responsible college teachers on the subject. Undoubtedly there is a propagandum to the effect that America is now tremendously prosperous; this is issued both by Wall Street, so-called, and by the Republican party, each for obvious reasons.

America today is neither properous nor miserable; we are neither upon a plateau of prosperity nor in a valley of depression. The times are average and level. There is no indication of a great boom and by no means any indication of plunging over the precipice into hard times. Scientific economists have discovered that the key to good times and to bad times is in agricultural production estimated not in money but in quantities. Only five crops need to be considered; viz., cotton, corn, hay, wheat and oats. When there is a good total of these crops, the times become good and remain so for a twelvemonth. The explanation is that large crops mean low prices to city people and yet fair incomes to farmers and planters because of quantity produced. The graphs on this line are unmistakable. They all go one way. Even the world war did not throw the graphs much out of line. America needs cheap foods and cotton.

In saying this I am not entering upon any discussion of the present causes of unemployment or upon the question as to whether or not this unemployment is excessive and unusual this spring. I do not enter upon the question as to whether or not America can afford to spend more than two billions of dollars a year upon education, or even whether in fact we do spend that much, which I very much doubt despite the frequency of the assertion.

The basic matter is what do the American people as a whole generally earn per year in the way of economic goods and services. The exaggeration does educators, who make it, no good in the way of personal standing with intelligent men in business or in the field of economics; of course, it is repeated unintentionally, but even this is not creditable to educators who are supposed to know that of which they talk. We are by no means so rich as we are represented as being, and this damages us with the foreign world and with the intelligent persons among our own numbers. The exaggeration leads to the campaign for cancellation of the world war and postwar foreign debts as contracted by foreign peoples with us. It causes envy and even hatred of us.

What we do need is a campaign to bring all rural and other backward districts into line with the best educational conditions elsewhere. Every child has the right to a proper development, in city and in country alike and equally. We shall not arrive at this by telling the rural people that we are a very rich nation; because the rural people know that they are by no means rich. This makes them believe that the city people are far richer than in fact they are.

A recent survey shows that there are now about 28,000,000 families in the United States, living in 22,000,000 separate dwellings. But the 15,500,000 urban families have only 10,000,000 dwellings while the 12,500,000 rural families have 12,000,000 dwellings. Moreover, the average number of rooms per urban family is only four while that per rural family is almost six. Also, the average value per rural family dwelling is $2,400 while that per urban family is only $2,200. This fact in itself should tend to discourage the envy of the city that seems to be inculcated by this propagandum that the city has all the wealth.

I have a suspicion that millions of city children go to poorer schools than the average rural schools despite the popular impression to the contrary. Any poor school whether rural or urban should be replaced by a good one whatever our national income we can and should afford to give promptly a good schoolhouse and a good teacher to every child. That is the first item in every good educational program.

Very respectfully yours,
William E. Chancellor.

Norwood, Ohio, April 2, 1928.

EIGHTH ANNUAL CONFERENCE HELD AT COLUMBUS, OHIO

—The eighth annual Ohio State Conference was held April 12 to 14, at Columbus. The speakers for the general program were Pres. Clarence C. Little of the University of Michigan; Pres. Glenn Frank of the University of Wisconsin; Pres. Emeritus W. O. Thompson of Ohio University; Prof. J. Paul Goode of the University of Chicago; and O. T. Corson.

Other speakers at the 29 sectional meetings were Supt. John J. Maddox of St. Louis, Mo.; Mr. William McAndrew, of the School Review; Mr. Lee Driver of the Pennsylvania state education department; Mr. F. B. Knight of the University of Iowa; Mr. F. G. Blair of Springfield, Ill.; Mr. George F. Womrath of Minneapolis, Minn.; Mr. R. W. Selvidge of the University of Missouri; Mr. A. H. Bell of Gary, Ind.; and Mr. V. A. C. Henmon of the University of Wisconsin.

In addition, some 75 prominent Ohio teachers and administrators appeared on various programs.

THE ABRAHAM LINCOLN JUNIOR HIGH SCHOOL

(Continued from Page 69)

attractive wall lights. The floor is covered with tan and brown cork, in checkerboard arrangement. Directly opposite the entrance is a large colored tile picture of the boy Lincoln, reading before a fireplace. The room is equipped with a desk, a card catalog, chairs, and 24 library tables. Opening from the main library are seven conference rooms devoted to various departments of the school. The books which apply specifically to any one particular department are kept here. Here teachers may meet with pupils for special work. The fiction and the general reference books are on the shelves in the general reading room.

In the west wing are located the gymnasium, the swimming pool, and the cafeteria. The gymnasium measures 81 ft. by 79 ft. Sliding, folding doors permit the room to be divided into two parts: a gymnasium for the girls, and one for the boys. Six basketball backboards allow for one regulation game and two crosswise of the room when the doors are in place. The room is well lighted by solid walls of windows on the east and west and by five rows of powerful lights. Balconies on the north and south sides of the room accommodate 200, while the ten-tier bleachers on the main floor will seat 1,000 more. Opening from both parts of the gymnasium is a physical director's office and a room for small equipment and sundries. A larger room for large pieces of apparatus and adjustable bleachers is off the east side of the room.

The showers and lockers for both the gymnasium and swimming classes are in rooms below, reached by stairways leading from the gymnasium. The shower rooms are provided with lockers, showers, and driers of the most modern type.

The swimming pool is in black and white tile. It is of regulation size, 20 ft. by 60 ft, and ranges from 2½ ft. in the shallow to 7½ ft. in the deep end. Water continually runs into the pool, clarifying it by overflowing into troughs at the side. In addition, chlorination and vacuum cleaning are employed to keep the water and pool in satisfactory condition. A diving board is also provided.

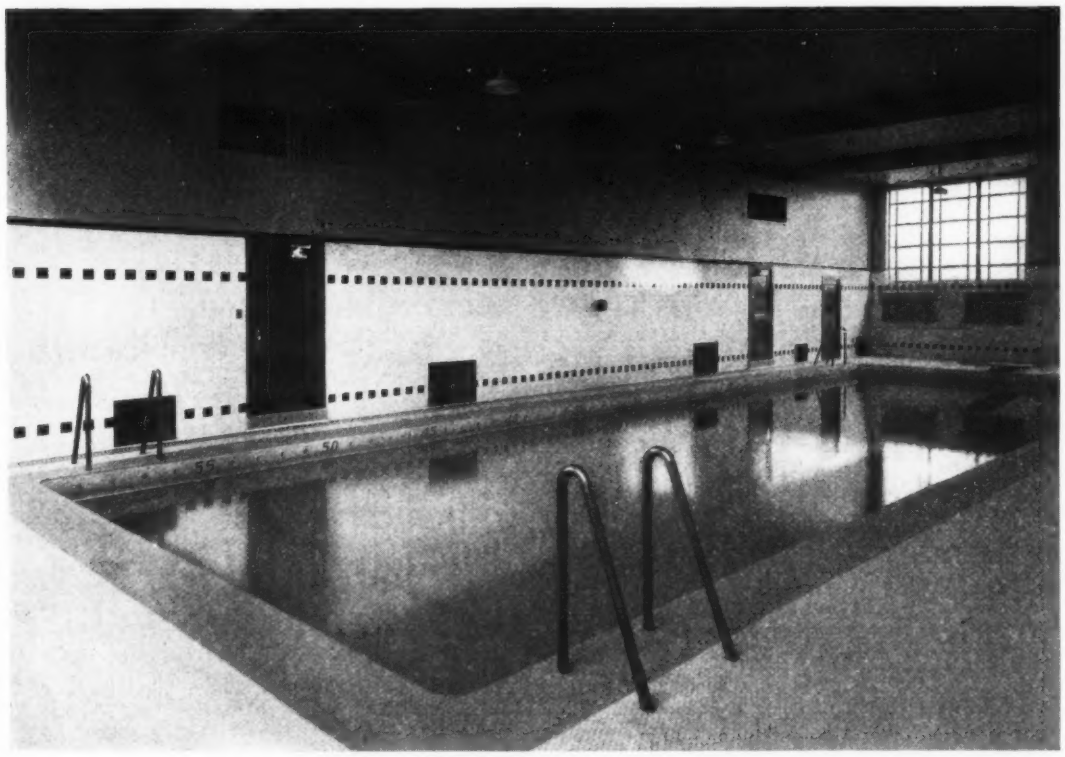
With windows on the east, south, and west, the cafeteria is a bright, cheerful room, from



PHYSICS LABORATORY,
ABRAHAM LINCOLN JUNIOR HIGH SCHOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

which may be seen a most interesting view of the City of Rockford. The place is furnished with long maple tables and comfortable chairs. There are two double entrances to the room which obviate all crowding and pushing. The two lines formed before the counters make it possible to serve a great many in a short time. The steam table is a very successful modern one. The kitchen is electrically equipped—electric dishwashers, potato peeler, bread cutter, and refrigerator. An automatic elevator has been installed for the transferring of supplies to this department.

On the same floor are located the art and the household-art departments. There are two art-rooms, equipped with long tables with running water and drains. The faucets are so placed that the water does not splash when turned on. Provision is made for the care of supplies by the cupboards and by the tiers of tin drawers



SWIMMING POOL,
ABRAHAM LINCOLN JUNIOR HIGH SCHOL, ROCKFORD, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

Construction Data

Plans and specifications approved			March 9, 1925
Contracts authorized			Aug. 14, 1925
Building started			Sept. 25, 1925
Building dedicated			Sept. 20, 1927
Building Occupied			Sept. 1927
Dimensions			134' x 450'
Site area			5.5 acres
Cost of site			$ 135,341.50
Cost of building			$ 961,937.13
Cost of equipment			$ 50,272.40
Total cost of site, building, and equipment			$1,148,551.03
Cost per cubic foot			$ 34.84
Cost per pupil accommodated			$ 480.50
Pupil Capacity			2,000
Cubic feet in building			2,760,883
Distribution of Floor Space		Sq. ft.	Per cent
1. Stairs and corridors	20	32,572	19.25
2. Administration	16	31,259	18.50
3. Walls and partitions 4. Flues 5. Accessories	14	23,555	14.00
6. Instruction	50	81,550	48.25
Total floor space		168,936	100.00

Instruction Rooms:	No.	Dimen.	Capacity
Classrooms	27	22' x 26'	35
General science laboratory	3	22' x 36'	35
Music room	2	22' x 38'	50
Bookkeeping	2	22' x 40'	40
Typewriting	1	22' x 40'	40
Art	2	22' x 40'	30
Cooking	2	22' x 48'	28
Sewing	3	22' x 48'	30
Mechanical drawing.	2	22' x 40'	36
Food shop	1	22' x 106'	24
Printshop	1	22' x 50'	24
Machine shop	1	33' x 49'	24
Auto shop	1	35' x 49'	24
Home-mechanics shop	1	22' x 90'	24
Gymnasium (dividing door)	1	81' x 79'	1200
Corrective gyms.			
Pool room	1	35' x 81'	
Swimming pool	1	20' x 60'	25
Library	1	37' x 74'	144
Auditorium	1	56' x 74'	720
Fresh air suite (3 rooms).			
Community room (with stafe)	1	22' x 52'	100
Non-Instruction Rooms:			
Toilets	20		
Offices	3		
Cafeteria	1	81' x 79'	450
Gym dressing rooms.	2		
Stage dressing rooms	3		
Shower rooms	2		
Restrooms	4		
Medical suite	3		
Heating and power plant	1		
Locker rooms	2	(Girls 22' x 105' (Boys 43' x 54'	
Model dining room			
Model suite			
Bathroom			
Dining room			
Living room			
Bedroom	1	22' x 40'	

in which the pupils keep their work. As in most of the classrooms, cork display panels are above the blackboards and cork bulletin boards beside the door.

(Concluded on Page 152)

Partial List of Important New Laboratory Furniture Contracts

awarded to Kewaunee since Jan. 1, 1928

40 Carloads — University of Pennsylvania, Philadelphia, Pa.
Architects, Stewardson & Page, Philadelphia.

17 Carloads — Yale University, School of Medicine, New Haven, Conn.
Architect, Henry C. Pelton, New York.

10 Carloads — Dartmouth College, Hanover, N. H.
Architect, J. Frederick Larsen, Hanover, N. H.

8 Carloads — University of Virginia, Medical College, Charlottesville, Va.
Architects, Coolidge, Shepley, Bullfinch & Abbott, Boston.

6 Carloads — University of West Virginia, Morgantown, W. Va.
Architects, Davis, Dunlap and Barney, Philadelphia.

6 Carloads — Alton Community High School, Alton, Ill.
Architects, Royer, Danely & Smith, Urbana, Ill.

6 Carloads — Longfellow Junior High School, Flint, Mich.
Architects, Malcolmson & Higginbotham, Detroit.

6 Carloads — Milwaukee Downer College, Milwaukee, Wis.
Architects, Van Ryn & DeGelleke, Milwaukee, Wis.

4 Carloads — University of Wisconsin, Chemistry Building, Madison, Wis.
Architect, Arthur Peabody, Madison, Wis.

These awards total more than $450,000. Our manufacturing capacity is in excess of $200,000 a month.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

C. G. CAMPBELL, TREAS. AND GEN. MGR.
101 Lincoln St., Kewaunee, Wis.

Chicago Office
25 E. Jackson Blvd., 1511 Kimball Bldg.

New York Office
70 Fifth Avenue

BRANCH OFFICES
Minneapolis Kansas City Houston Little Rock Denver Lincoln, Nebr. Columbus
Spokane Oklahoma City Los Angeles Jackson, Miss. Baton Rouge Phoenix Philadelphia
Greensboro, N. C. El Paso Salt Lake City Portland, Ore. Des Moines San Francisco

Peterson
Laboratory and Library Furniture



L-5060
LIBRARY TABLE
The table has a one-half-inch, five-ply top. The legs are rigidly held by braces and lag screws. It will stand hard usage.

The modern school demands modern equipment. In Peterson Laboratory and Library furniture is found the qualities identified with every fine product — QUALITY OF MATERIAL AND SKILLED WORKMANSHIP.

Your school offers superlative equipment to its students when Peterson furniture is installed.



1135
Student's Biology Table, a double-duty laboratory and recitation table, where it is preferable to have students face one way.

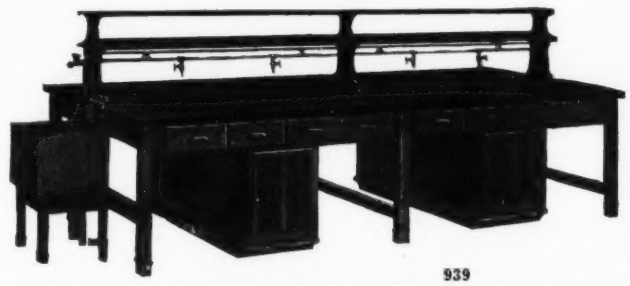


L-5042
MAGAZINE RACK
Especially designed for the children's department of the Library. It has five compartments of various sizes.

PETERSON SERVICE

A rough pencil sketch of the rooms you wish to equip will promptly bring our suggestions, together with an estimate—this without obligation on your part.

Write for these catalogs:
Laboratory Catalog No. 14-A
Library Catalog No. 15-A



939
Student's Chemical and Agricultural Table. A dual-purpose laboratory table. Ample storage space for sixteen students — open spaces below provide knee space when students are using tools.

LEONARD PETERSON & COMPANY, INC.
Office and Factory
1222-34 FULLERTON AVENUE CHICAGO, ILLINOIS.
Distributors conveniently located to serve you.

(Concluded from Page 150)

The household-arts department contains a group of cooking rooms, sewing rooms, and a model apartment. The kitchens are on the unit system—seven kitchens in one. These are provided with electric refrigerators and a goodly supply of stoves, cupboards, and sinks. The sewing rooms are large, with plenty of light. They are equipped with mirrors and with fitting rooms. There are glass cases in which the girls may keep their dresses, and compartments where they may keep their hats.

Most of the other rooms are used for classes in academic subjects. They are for the most part alike in arrangement and equipment. Steel-framed windows line one side of each room and permit a maximum of light to enter. Slate boards, with display panels above them, are on the other three sides of each room. A large bookcase and a teachers' closet, fitted with a shelf, hooks, and an umbrella stand, are the chief items of the permanent equipment. In addition to these, there are a desk, a reading table, and pupils' desks and seats. Most of the rooms are furnished with movable desks of a most satisfactory type.

The architects for the board of education were Messrs. Peterson and Johnson of Rockford, Ill.

THE DOBYNS-BENNETT HIGH SCHOOL, KINGSPORT, TENN.

(Concluded from Page 60)

special rooms, and the various departments.

As is shown in the floor plans, the auditorium and gymnasium are on opposite ends of the building, with the classrooms and laboratories between. Often it is desirable to use the auditorium for theatricals at the same time that a basketball game or some other physical contest is in progress in the gymnasium. According to the present arrangement, both the gymnasium and auditorium may be used very conveniently at the same time without admitting the public to any other section of the building. The idea running through the whole plan was to make usable at any and all times any one or all of the facilities without working any inconvenience to anyone. Experience has proved this arrangement entirely satisfactory.

The auditorium has a seating capacity of approximately 1,700 seats on the main floor and 300 in the balcony. It is accessible to the classrooms from the main corridor and to the public by means of a main entrance from the street, without permitting admittance to any other section of the building. Toilets are also provided in the foyer for the convenience of the public.

A stage 30 ft. deep and 37 ft. wide, with a proscenium opening 20 ft. high and 29½ ft. wide, having four dressing rooms, is fully equipped for the most elaborate theatrical performance. The curtain is an excellent piece of plum-colored velour. Drops, flies, borders, screens, and cyclorama are all suspended. Everything is operated from a gallery pinrail. Set pieces were selected so that a very large number of variations are possible in the arrangement of stage settings.

The lighting system of the auditorium is very complete. Footlights, of the disappearing type, together with the border lights, make possible the flooding of the stage with light from 180 bulbs. These lights are arranged in three circuits so that any color or combination of colors is possible, the intensity being controlled by a set of dimmers.

A fireproof booth in the rear of the balcony is provided with moving-picture machines, stereopticon machines, and spotlights. This booth is connected with the stage by a communication system.

The gymnasium has an open floor space 68 by 90 ft. At present there is no gallery or running track, but should these prove desirable, the trusses are constructed to carry a balcony suspended from them and thus eliminate all supporting posts from the floor. At the rear of the gymnasium are dressing rooms and locker rooms, with showers adjoining. The boys' accommodations are on the first floor, while the girls are taken care of on the second floor. Offices for the directors, for both boys and girls, are located in connection with the showers and dressing rooms, thus being under their constant supervision. Provision is made for ample storage of apparatus, uniforms, and supplies.

The gymnasium is a separate unit, usable at any and all times without disturbance or inconvenience to any other department. It is accessible to the classrooms from the main corridor on the first floor, and to the public through a street entrance. Another entrance opens directly onto the athletic field.

The shop and home-economics department at present occupy space on the ground floor, eventually to be used as a cafeteria. Both departments are fully equipped. The entire classroom section of the ground floor is planned for laboratories and lecture rooms. All plumbing and electrical facilities are installed for future use in the laboratories and lecture rooms. All laboratories contain modern equipment. The remainder of the ground floor is devoted to the heating plant, the janitors' quarters, and machine rooms for the machinery used in operating the mechanical-service systems.

The heating system is so arranged that the force of the whole plant can be directed to any one of the three units. This makes possible a maximum of service at a minimum cost. In addition to the main heating plant, an auxiliary heater is provided for heating the offices on Saturdays and holidays.

The hot-water heating system is a combination system. Two heaters are available, but it is seldom necessary to use both. In addition to these a heater is operated by steam from the

(Concluded on Page 154)

The LAW NON-COLLIDING CHAIR

Will Help *You* Solve *Your* Seating Equipment Problems





IN a significant percentage of instances, those school officials who have placed their initial orders for the Law Non-Colliding Chair have demonstrated its worth to them by re-ordering. Its compactness and efficiency, its convenience in use, and its economy of space have had a distinct appeal. Once it has been placed in practical use, its advantages over the ordinary type of seating have been quickly obvious.

The Law Non-Colliding Chair is particularly adaptable for use in biology, chemistry, domestic art, domestic science, general science, and physics departments. However, its use is not restricted to these departments alone. It is an ideal chair for teachers' use, particularly because of its comfort features and the saving in space it effects. In fact, it can be used on *any table or desk* which provides twenty-two inches of knee space and can be furnished with mechanism for attaching it to the right or to the left of the knee space, as required.

Whether you are planning to purchase seating equipment for a new building or are merely replacing equipment that has outlived its usefulness, it will pay you to investigate the merits of the Law Non-Colliding Chair. A consultation service on seating equipment problems is available to school officials and architects without obligation. Because of our varied experience in the furnishing of better quality school chairs, it is quite possible that we can be of material assistance with *your* seating equipment specifications.

BOARD OF EDUCATION

SHAKER HEIGHTS VILLAGE SCHOOL DISTRICT

SOUTH WOODLAND AND WOODSBURY ROADS

CLEVELAND, OHIO

C. A. BOWERS, PRESIDENT
C. H. LAKE, VICE PRESIDENT
HELENE NORTH HARTEN
H. J. ALLEN
D. E. GREEN

F. H. BAIR
SUPERINTENDENT
R. B. PATIN
ASSISTANT SUPERINTENDENT
J. W. MAIN
CLERK-TREASURER

April 9th 1928

The B L Marble Chair Company
Bedford
Ohio

Gentlemen -

Will you kindly have your Mr O B Law stop in at his convenience with regard to the use of additional Law Non-Colliding Chairs?

Those in use in our biology laboratory have proven most satisfactory and have been the subject of much favorable comment by teachers, pupils and custodians.

Yours truly,

J. W. Main
Clerk Treasurer

The B. L. Marble Chair Company

School Seating Division

Bedford, Ohio



Would you not agree with pupils, teachers and patrons that such a classroom as this is as pleasant as any could be? American Portable Schools are just as attractive on the outside, too.

Write for catalog and details

AMERICAN PORTABLE HOUSE CORPORATION

601-611 ALASKA ST., SEATTLE, WASH.

REPRESENTED BY:

H. R. SHEPHERD
7331 Coles Ave.
Chicago.

C. F. WEBER
601-609 Mission St., Cor. 2nd
San Francisco, Calif.
6900 Avalon Bldg., Los Angeles, Calif.

THE ACME COMPANY
19-21 West Third St.
Cincinnati, O.

A. M. BLOOD,
Rock Island, Ill.

SALES INCORPORATED
Easton, Penna.

AMERICAN SCHOOL SUPPLY CO.
415 Chestnut Street
St. Louis, Mo.

EDUCATIONAL SUPPLY CO.
Painesville, O.

W. I. JOHNSON
Waynesburg, Pa.

HENRY WIGGS
1649 Nostrand Ave.
Brooklyn, N. Y.

VIRGINIA SCHOOL SUPPLY CO.,
Richmond, Va.; Charleston, W. Va.

T. R. WOODBURN CO.
Terre Haute, Ind.

(Concluded from Page 152)

heating-plant boilers. All hot-water lines are brass. The plant has a capacity of 1,200 gallons of hot water per hour.

The offices, the clinics, the women teachers' restroom, the commercial department, and classrooms are located on the first floor. The offices include the principal's office, the superintendent's office, a clerk's office and work space, a lobby, and a vault. All offices are equipped with complete toilets and cloakrooms. The 13 classrooms are of standard size, except one, which is provided for small groups, usually found in the upper classes of the foreign-language department. All classrooms are well lighted and ventilated. Part of these rooms are equipped with tables and chairs, and part with desks. All classrooms have hardwood floors.

On the second floor are 6 classrooms, the study hall, the artroom, and the music room. The study hall is a room equivalent to two and one half classrooms, seated with desks, and will eventually be used only as a library. In the rear of the study hall is a stackroom and a librarian's desk. The music room is a soundproof room seated with opera chairs to accommodate 99 pupils at one sitting.

The building is constructed as follows:

Foundation: waterproofed and damp-proofed concrete with wide footings.

Roof: green concrete shingle.

Outer walls: hard-burned brick, laid in cement mortar. Flemish bond.

Interior corridor walls: tile.

Corridor floors: reinforced concrete covered with mastic flooring.

Stairways: reinforced concrete covered with the same material.

Other floors: hardwood.

The building is supported throughout with a network of steel. The roofs of both the auditorium and gymnasium are supported by steel trusses.

Except for the classroom floors and the partitions, all materials are fireproof. All wiring is run in conduit and Bx cable, and comes up to the specifications of the National Board of Fire Underwriters. All ceilings are covered with metal lath. In addition to using fire-resistive materials in the construction, a 2-in. fire hose has been placed within 75 ft. of any point in the building.

French gray lockers are recessed in the corridor walls. The lockers are set on a concrete base 6 in. high, which is turned up from the floor.

Toilet facilities are provided on every floor. Washbasins, bubbling fountains, janitors' storerooms, slop sinks, etc., are also provided on every floor, so that every classroom has access to these conveniences.

Every classroom is equipped with a built-in bookcase. All window sash are of steel, running to within 6 in. of the ceiling. The window shades are light cream, admitting sufficient light, but effectively shutting out the glare of the sun. The blackboards are dull black.

Since the bricks, cement, and the greater part of the lumber were produced in Kingsport, this building, of 1,100,000 cu. ft. of space, was possible at a cost of slightly over $250,000.

The architects were Dryden, McKenzie, and Brady, of Kingsport, Tenn.

THE SCOTCH PLAINS HIGH SCHOOL

(Concluded from Page 62)

The heating is of the multiple-unit ventilating type, with vacuum pump.

The electric installation is complete, with telephones, fire alarm, and clocks.

The plumbing is first-quality vitreous china, with hard rubber seats, and flushometer valves. The drinking fountains are mounted on glazed tile backs and are of the bubbler, hand-operated type.

The capacity of the school at the present time is 500 pupils; the auditorium capacity is 807; the gymnasium has, besides the playing floor space, a seating space of 300. The auditorium has a fully equipped stage, including curtains, draperies, cyclorama and scenery. The electrical equipment includes spotlights, borders, dimmers, and remote control switches.

The cubical contents of the building is 707,000, at a cost of 35 cents per cubic foot. The costs were as follows:

Land	$ 12,500
Equipment	20,000
Building	237,500
Total	$270,000

These figures include all items of expense incurred in connection with the operation from beginning to end, including all professional fees: architects, lawyers, advertising, etc. The building was finished well within the amount appropriated for the purpose.

The board of education, whose judgment and foresight was heartily indorsed by the voters in an election for the appropriation, was composed of the following:

Edgar C. Markham, president; Samuel B. Macaulay, vice-president; T. J. Nicholl, district clerk; John Z. Hatfield, R. F. Riblet, Henry Kaufmann, Mrs. H. C. Young, Wm. M. White, Frances Haskard. Mr. Russel E. Bullock is the supervising principal of the school.

The architects for the building were John Noble Pierson and Son, of Perth Amboy, N. J.

—Topeka, Kans. The school board has placed $2,000,000 worth of explosion insurance on school buildings. The insurance is to apply to all buildings in which gas is used and may be extended to cover the six other buildings in which gas is not used, as gas may be installed at a later date.

101 YEARS OF MANUFACTURING EXPERIENCE



This is the new H-W Sanitary Pedestal Desk Set which is causing favorable comment among educators.

The H-W line of School Seats is most complete and contains many desirable models.

PROMOTES SANITATION AND PROTECTS HEALTH

THIS desk, the latest development of our Research Laboratory, simplifies sweeping, promotes sanitation, and thereby protects the health of pupils. With each unit supported by a single base, a much greater floor area is noticeable to the pupil. As a result, this desk deters those minded to litter the floor and, consequently, encourages classroom cleanliness. It is sturdy yet graceful, absolutely rigid, and is made without a single dust-catching crevice or corner. This modern desk, made in both adjustable and stationary types, will interest everyone concerned with practical seating.

Our seating experts will be glad to tell you more about this Sanitary Pedestal Desk Set and to suggest helpful seating plans. The nearest H-W warehouse will send a man to you without cost or obligation.



The advantages of this desk and many other school units are described in our new School Furniture Catalogue. Write for a copy.

Heywood-Wakefield
REG. U.S. PAT. OFF.



Baltimore, Maryland 113 West Conway Street
Boston 45, Massachusetts Winter Hill
Display Floor, 174 Portland Street
Buffalo, New York Wells and Carroll Streets
Chicago, Illinois 2653 Arthington Street
Display Floor, 439 Railway Exchange Building
Kansas City, Missouri 1310 West 8th Street
Los Angeles, California 801 East 7th Street
New York, New York 516 West 34th Street
Philadelphia, Pennsylvania 244 South 5th Street
Portland, Oregon 148 North 10th Street
San Francisco, California 737 Howard Street
St. Louis, Missouri 6th and O'Fallon Streets





EXPERT CONSULTING SERVICE ON LABORATORY INSTALLATIONS

The Sheldon Company has been building laboratory furniture for over thirty years and has equipped many of the outstanding high schools and colleges of the country. This practical experience is made available to you, to help you in the selection and arrangement of furniture, through the Sheldon Direct-Factory representative near you and the Sheldon Equipment Planning Department.

If you are planning a science laboratory or a home economics department you will find it worthwhile to consult Sheldon. We have done a tremendous amount of research work and experimentation to satisfactorily solve hundreds of equipment problems resulting in the development of over 300 items of furniture. We can help you plan your department to economically secure the maximum efficiency. This service to educators is made available through a special appropriation set aside for research and advertising.

Write us today and tell us when you want our representative to confer with you.

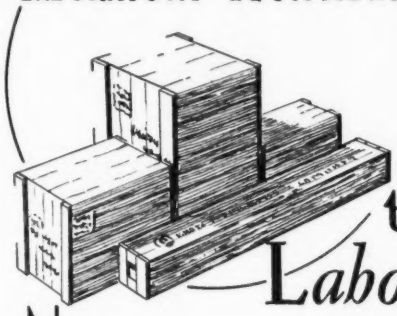
E. H. SHELDON AND COMPANY

Laboratory, Home Economics and Vocational Furniture

MUSKEGON, MICHIGAN.



HARCOURT
LABORATORY EQUIPMENT



A MODERN WAY to buy *Laboratory Supplies*

Now used by hundreds of schools

1928—a year of rapid change. Style, customs, color, drawing and painting, poetry, science—a new spirit reflected in new ways of doing things — of accomplishing results.

Up-to-date? — Yes — and ahead of time, too: budgeting in finance, scheduling in production, quotas in selling—all exemplify the spirit of 1928. And in schools, too, — annual inventory, checking needs, listing requirements, and spring ordering. . . . A few years ago a number of progressive schools ordered laboratory supplies for delivery *before vacation*—the plan worked. Now hundreds of schools have learned the convenience and the economy of this modern way of buying. If you are planning a new building, or new laboratories, write us about the Harcourt Laboratory Planning Service. This service, always rendered without obligation, has for 33 years been a powerful factor in the development of teaching by the laboratory method.

Ask for 1928 Physics Catalogue 33R but remember the Harcourt Line includes beside, everything for Chemistry, Biology, and General Science.

L. E. Knott Apparatus Company, 79 Amherst Street, Cambridge, Massachusetts.

Harcourt *Laboratory Equipment*

STANDARD *for* EDUCATION SINCE 1895

L. E. KNOTT APPARATUS COMPANY,
79 Amherst Street, Cambridge, Massachusetts
We are interested in Physics Catalogue 33R. Please send copy.

Name..... Position.....

School .....

Town..... State.....



CLARIN CHAIRS are made of steel (excepting seat and rubber floor contacts) and will not mar the finest floor nor damage the most delicate floor covering.

THE IDEAL FOLDING CHAIR

should operate quietly—it should open and close easily—the mechanism should be extremely simple to insure speedy operation throughout its life.

Operate a CLARIN at our expense by sending the coupon.

Clarin Mfg. Co., 2456 N. Crawford Ave., Chicago, Ill.

Please send by parcel-post prepaid—sample CLARIN CHAIR, finish and seat as checked:

☐ Brown (walnut) ☐ Battleship Gray ☐ Wood Seat
☐ Maroon (mahogany) ☐ Olive Green ☐ Leatherette Seat

We will either return it or pay for it after ten days' trial.

Signed.....

BOOK REVIEWS

"The Also Rans": Men who Missed the Presidency

By Don C. Seitz. Cloth, 384 pages. Published by Thomas Y. Crowell, New York City.

Under this undignified title the story of the country's great statesmen is told in striking language. A great American editor has set himself to the task of measuring the lives and labors of those who became candidates for, but were not elected to, the office of chief executive of the United States.

Before doing so he reviews in a chapter the administration of those who were elected to the exalted office. He is unsparing and harsh in dealing with "Our Presidents." Their character, service, and achievements are reduced to the barest minimum. Their faults and shortcomings are as glaringly pictured as are their virtues. They are stripped of all halos and hero worship. It is not a chapter which should be placed before young people.

The body of the book, however, deals with the nation's great men—men who attained eminence through service in the field of government and statesmanship. There are chapters on such figures as Aaron Burr, Henry Clay, Daniel Webster, Stephen A. Douglas, George B. McClellan, Horace Greeley, Samuel J. Tilden, James G. Blaine, William Jennings Bryan, and others. Their story is told in a crisp style in which the writer is a master, replete with interesting incidents, and reflective of the period with which it deals.

On the whole, these remarkable biographies provide an outline of the country's political history as seen by a man who is a clear thinker, an indefatigable investigator, and at the same time a fearless critic and commentator.

American Presidents

By Thomas Francis Moran, Ph.D. Cloth, 318 pages. Published by Thomas Y. Crowell Company, New York City.

This is a revised edition of a book on the same subject which the author wrote some years ago. He has added considerable material in the way of historical documents and has otherwise produced a more complete book.

The first three of the five chapters deal exclusively with the lives of the presidents from Washington to Coolidge. The outstanding facts connected with their administration are tersely and compactly presented.

The author devotes a chapter to the question, "why great men are not chosen president," and closes the volume by a discussion on "the ethics of the presidential campaign." He also provides short sketches of the nation's great statesmen who were most eligible to the office but not chosen.

Prof. Moran is frank in holding that the present method of choosing a president of the United States is not the best, and points out the faulty method of selection and the destructive criticism engaged in during campaigns.

The New Second Reader

By Eva A. Smedley and Mareta C. Olsen. Cloth, 192 pages. Published by Hall & McCreary Company, Chicago, Ill.

The authors, engaged in actual teaching, have evolved a reader which is rich in delightful and instructive material. The text is printed in large type and the illustrations which are provided by Matilda Breuer. These are in outline and colored.

The subjects dealt with are designed to fascinate the child mind, and at the same time carry much useful information and stimulate imagination and thinking.

New York Latin Achievement Test

By H. C. Thompson and Jacob S. Orleans. Specimen set of four tests. 45 cents. World Book Co., Yonkers-on-Hudson, N. Y.

Recent standardized tests in high-school subjects have represented no new principles in construction; the best tests have been characterized by greater universality of content and more careful standardization. The opinion has been growing that tests must actually represent work which is characteristic, in content and level, of the schools which are to be tested.

The present test consists of two forms for the first half year and two forms for the second half year of first-year Latin classes. The content is based on the New York state syllabus, and represents the basic topics of vocabulary, syntax, syllabification, derivation, and translation. The tests have been applied to some ten thousand students in schools of New York state.

For the Empire State the test is undoubtedly ideal. It is to be regretted that the authors have not gone further afield in the study of content to determine the applicability of the test to the country at large. It is not likely that their further study would have netted many changes. The average teacher would, however, have greater confidence in the test, particularly if results are not up to the New York standard.

Our Surroundings and Elementary General Science

By Arthur G. Clement, Morton C. Collister, and Ernest L. Thurston. Cloth, 628 pages. Published by the Iroquois Publishing Company, Syracuse, New York.

This is a popular treatment of science. It seeks to uncover the mystery which cover the things about us, and to bring understanding and appreciation in the field of science to the pupil. The meaning of science, matter and energy, air, water, heat, sound, light, magnetism, and electricity—all are elucidated.

The book provides numerous experiments and exercises. Illustrations in abundance are shown and form an attractive aid to the studies presented.

Idylls of the King

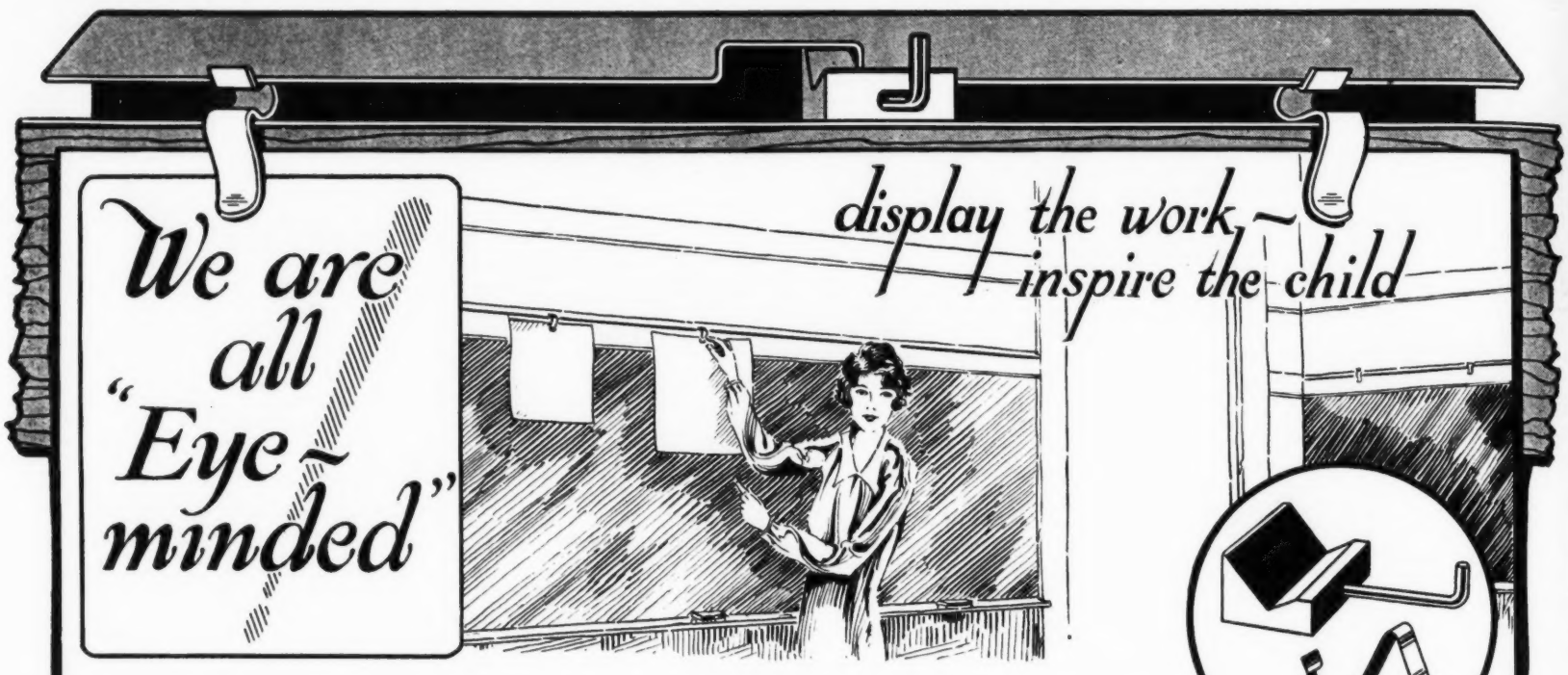
By Alfred, Lord Tennyson. Cloth, 382 pages, illustrated. The Macmillan Co., New York City.

This reissue of the volume published two years ago as one of the early numbers of the "Modern Readers Series" has been embellished by twelve illustrations. The format and binding of the book should make a strong appeal to the man who is developing a home library. The scholarship of the editorial work strongly recommends the book for adult reading.

Crowell's Dictionary of English Grammar

By Maurice H. Weseen. Cloth, 704 pages. Price, $4.50. Thos. Y. Crowell Co., New York, N. Y.

This book embraces in one vocabulary the terminology of grammar, of composition and rhetoric, and of literature. The definitions are brief and accurate, but quite informal and humanly interesting, and where necessary are illustrated by means of quotations or examples. Quite a feature of the book is the emphasis placed upon common usage in the United States, upon pitfalls of idiom and grammar, and upon common errors to avoid. Included in the vocabulary are many words which are not strictly within the subject matter of the book, but because of their wide use as slang, in poetry, or in technical language, are of particular interest in a book devoted so largely to good usage as is this book.



THE Day Adjustable Display Rack affords a neat, simple, efficient, safe and low-cost means of hanging all displays, maps and exhibits. It displaces all nails, hooks, screweyes, thumb-tacks, pins and other unsightly and dangerous makeshifts and thereby encourages the use of exhibits. The **Day** is always ready to support either flat displays or heavy objects—just a flip of the finger and the exhibits are up or down.

THE Day Adjustable Display Rack fits along the top of the upper blackboard moulding where it is out of sight and way. The rack itself is an attractively finished steel rail which comes in four foot lengths and may be installed in a few minutes by your janitor without special tools. Both rail and hooks are built to last a life time—first cost is surprisingly low and maintenance nothing.

UP-TO-DATE school supply dealers throughout the United States and Canada will be glad to show you the **Day**—or better still, write to us for a working model.

J. L. Hammett Company

380 Jelliff Avenue, Newark, N. J. **Kendall Square, Cambridge, Mass.**

The hooks used with the Day Adjustable Display Rack are of two kinds—small spring clips for hanging flat sheets and sturdy hooks for supporting maps and other heavy objects. Both clips and hooks may be fixed at any position along the rack and removed with one hand in a second. They cannot wear out.

The student of correct usage will find much help in the lists of prepositional phrases, of plurals without singular, of adjectives ending in ic, ical, or eal; in lists of compound and hyphenated words, etc.

The viewpoint of the book is most refreshing. English grammar is a tool to be used correctly, but not to be made a fetish of. More of that spirit in our teaching would make language study enjoyable and profitable.

The Shaping of English Literature

By Amy Cruse. Cloth, 315 pages. Price, $3.50. Published by Thomas Y. Crowell Co., New York City.

The textbooks of English literature have invariably sought to reflect the opinion of the authors, of literary men, and of expert critics. The books have not sought to reflect the opinion of the common man or of the vast number of general readers.

The author of the present book has sought to depart from the ordinary type of literature text by presenting to her readers an account of literature, written entirely from the viewpoint of the contemporaries of the authors of books, from the days of the Saxons to the end of the eighteenth century. She has sought to reflect not only the character of the literature itself as it has developed in its various forms, but to give some background of the life and times in the various centuries and to show how the social life and the religious and economic life determined the character of the literature of the day and affected it. The author is not without her strong prejudices and notions and her Puritan viewpoint frequently leads to inaccuracies in historical interpretation.

The book will in no sense replace any source book in the history of literature. Its chief value is in the sidelights which it provides.

School Posture and Seating

By Henry Eastman Bennett. Cloth, illustrated. Price, $2. Ginn & Company, Boston.

We have in this book the first adequate and comprehensive study of the entire problem of child posture and school seating.

Ever since the manufacture of school desks has been developed to commercial proportions, the selection of desks and seats has been more largely dependent upon economic factors of choice than hygienic and educational factors. School authorities have sought cheapness and durability more sedulously than fitness for hygienic posture and adaptability to educational activities. Practically every advance in school seating has come, not from school executives, but from school hygienists and forward-looking manufacturers who have sought to render a greater service than merely sell furniture at a profit.

The present inquiry covers the broad field of correct posture for study and work, and seeks to determine standards in school furniture which will insure optimum conditions. The physiological requirements for healthful sitting are fully discussed and the bad physical and psychological effects of continued stooping, twisting, and asymmetrical elevation of shoulders are described. The most important section of the book seems to be the chapters devoted to the standards of height, width, slope, and form of seat, to spacing, and to desk-height and slope. Basing his findings on a study of 3,500 children who were measured with special apparatus, the author fixes definite seat and desk heights and spacing for boys and girls, and recommends assortments of desk sizes for the several grades and for the high school. Similarly he determines optimum slopes and forms of desk tops and seats, and recommends deviations from the common commercial practice. The final chapters of the book discuss the advantages and drawbacks of movable seating, the seating arrangement of classrooms, the choice of seating equipment, and the materials and purchase of desks.

The book settles many points of opinion and controversy on school seating and places in the hands of school executives a dependable body of information for drawing up basic requirements for the choice of seats. We are not inclined to believe that the author is right in arguing that posture and seating should be made a separate matter of school instruction—it is no more important than a hundred elements which must be recognized in courses of health instruction. He is right, however, in insisting that there must be a definite program for correct seating and that this program must extend beyond the mere choice of desks and seats which meet the average requirements. He is repeating well-known axioms which are generally neglected, when he says that teachers must place children in seats which fit them, that adjustable seats must *be adjusted* at frequent intervals, and that movable seating is valueless unless it is moved but moved only to meet teaching needs and to conserve children's eyesight, hearing, etc. He renders a needed service when he punctures many claims for the values of tablet arms on desks, for diagonal seating of classrooms, and for many similar proposals that have a commercial origin.

The book answers a real need and deserves a wide welcome.

Interpretation of Educational Measurements

By Truman L. Kelley. Cloth, 8 vo., 363 pages. Price, $2.20. World Book Co., Yonkers, N. Y.

This book outlines the mathematical methods used in determining the norms and, to a certain extent, the reliability and validity of standard tests in education, and seeks to equip the user of mental measurement devices with means for eliminating probable error. The history, construction, and use of tests are briefly recalled in the opening chapters, but the bulk of the book is devoted to an explanation of statistical methods and an attempt at a comparative evaluation of the leading tests now available. A final chapter contains a classified list of the more widely used tests.

The most interesting chapter of the book is made up of the judgments of seven leading exponents of tests and testing, on the most widely used tests. The literal-minded teacher may well wonder why personal judgment should still be necessary to evaluate standard tests—those most objective devices in education for eliminating the error of personal judgment.

Lip Reading for the Deafened Child

Agnes Stowell, Estelle E. Samuelson, and Ann Lehman. Cloth, 190 pages. The Macmillan Company, New York City.

Teachers in special classes will welcome these carefully graded lessons in lip reading arranged by three leading authorities.

Great Moments from Great Stories

Edited by T. L. Doyle. Cloth, 282 pages. Price. $1. Globe Book Company, New York City.

Sixteen short stories, selected and edited by the study of short-story types.

Correct English Usage

By Evelyn Pribble. Cloth, 255 pages. Lyons & Carnahan, Chicago.

The present text is a study and practice book intended to "habituate the use of correct English." In covering the entire range of grammar, special emphasis is placed upon common difficulties and errors.



L.B. library equipment is built in the light of manufacturing experience which has been continuous for more than thirty years.

Its design and construction reflect a half century of intimate association with schools and libraries.

Technically correct, sturdily made, Library Bureau furnishings possess built-in value for which there is no substitute.

Consult the L.B. library specialist. He is backed by long experience—which he places at your disposal without obligating you at all.

Library Bureau

374 BROADWAY, NEW YORK

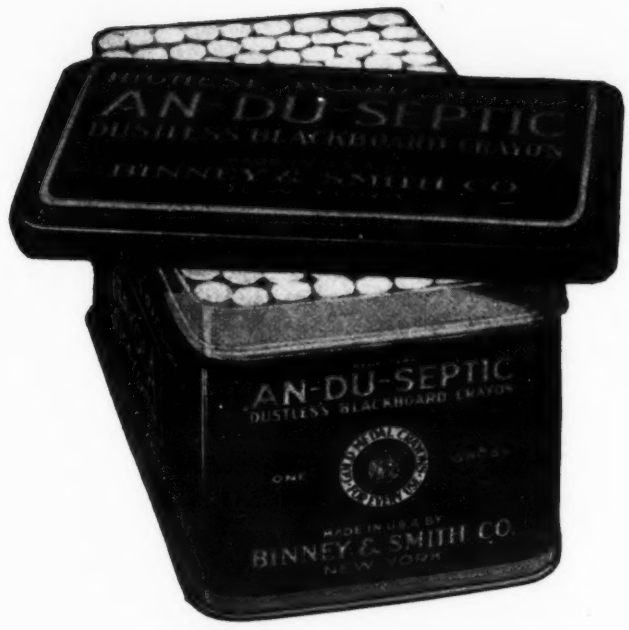
Headquarter points of the Library Department

118 Federal St. BOSTON, MASS. | 451 Broadway NEW YORK CITY | 214 W. Monroe St. CHICAGO, ILL. | 1200 S. Grand Ave. LOS ANGELES, CAL. | 89 Second St. SAN FRANCISCO, CAL.

DIVISION OF REMINGTON RAND SERVICE INC.

AN-DU-SEPTIC CRAYONS

An Old Friend in a New Dress



An-du-Septic dustless blackboard crayons are well known to you—and preferred by you—because they make a clear, clean white mark and leave no grease or grit behind them when erased.

Now they come to you packed neatly in an attractive new *metal* container which protects them from moisture and breakage, and which you can use over and over for a dozen different things.

An-du-Septic Crayons come in round, square, and hexagonal shapes. One gross to the box, 25 boxes to the case. Be sure to mention the new metal box when you place your next order.

GOLD MEDAL PRODUCTS

CRAYOLA *Wax Crayon*
PERMA *Pressed Crayon*
SPECTRA *Pastel Crayon*
ARTISTA *Water Colors*
ANTI-DUST *95% Pure Chalk Crayon*
AN-DU-SEPTIC *Dustless Crayon*
ATLANTIC *White Chalk Crayon*
White and Colored Blackboard Chalk
LECTURERS' *Colored Chalk*

BINNEY & SMITH CO.

41 East 42nd Street
New York, N. Y.

(Concluded from Page 158)

Constructive Spelling

Cornelia R. Trowbridge. Cloth, 141 pages. The Macmillan Company, New York City.

This book is far more than a speller for high schools. It is a word study book, with emphasis on spelling, and with carefully arranged lessons on word formation, compound words, formation of adverbs, derivation of words and affixes from ancient and modern languages, syllabication, pronunciation, the use of symbols, homonyms, hyphenating of words, and other equally important but minor elements of good usage. There is throughout the book a constant appeal to the student's understanding, and repeated emphasis on complete mastery as the goal of study. The vocabulary has been chosen with due regard for recent research.

The Cuddly Kitty and the Busy Bunny
The Podgy Puppy

By Clara G. Dennis. Cloth, 96 pages, each. Thomas Nelson & Sons, New York, N. Y.

Animal stories for small children.

An Oral Drill Book in Arithmetic

L. L. Everly. Cloth, 147 pages. Price, $1, postpaid. The Public School Publishing Co., Bloomington, Ill.

Carefully graded drill material in the fundamental operations, fractions, decimals, and percentage. Advantage has been taken of recent psychological studies and research studies. Clever use is made of a green tint to bring out the examples for the purpose of avoiding eye strain.

Strayer-Upton Arithmetics

George Drayton Strayer and Clifford Brewster Upton. Lower Grades. Cloth, 333 pages. Price, 72 cents. American Book Company, New York City.

In years past a new arithmetic represented the work of one or two men, who developed it during a long period of years engaged in teaching. It was invariably a local product and depended for success upon the writer's insight into conditions in other schools and upon his intuitive understanding of and experience with child nature and arithmetical principles. A new arithmetic of the present day pools the experience and observations of great numbers of educators. It is first the result of the intensive study of numerous courses of study, all of which have been developed from the experience of numerous teachers. It is again the result of studies of scientific inquiries into the needs and abilities of children carefully noted by objective methods. It is further the result of the examination of a wide variety of psychological and pedagogical experiments in colleges and schools. And finally, it is the result of the author's own experience and ability in collecting, combining, evaluating, and developing the vast body of material with which they have come in contact. Even this final result is subjected to further refinement and improvement as expert teachers, working under varying conditions, test it for a year or more and present their criticisms to the author.

The present book offers work for the second, third, and fourth grades and has been developed and tested, as above outlined. It is remarkably conservative and quite lacking in a so-called novel features. The method of presentation and the language are well adapted to interest children; problems are drawn from life and impossible examples are noticeably absent; abstract exercises are limited to drill. Means and methods of self-checking are introduced rather earlier than has been the custom in the past. The special reviews seem quite adequate for slow children.

The Measurement and Interpretation of School Building Utilization

By E. L. Morphet. Cloth octavo, 102 pages. Price, $1.50. Published by Bureau of Publications, Teachers College, Columbia University, New York City.

This book is an analysis of the utilization of 64 high-school buildings located in the New England and North Atlantic states. It seeks to determine, first, to what degree the rooms in each of the buildings are utilized and, second, to what degree the pupils' stations in each are made use of. In order to eliminate troublesome variables, a week of 2,400 minutes has been assumed as a reasonable basis of the measurement for the day-school use of each building. The author has set up necessarily elaborate technics for determining total utilization and percentages of utilization and for establishing from these the norms by which the several schools may be judged. The difficulty of the problem may perhaps be better understood when it is said that some of the schools studied operate on two sessions per day, while the number of periods vary from 6 to 12 per day. In general, it was found that many of the buildings are poorly adjusted to the weekly program carried on in them. Some are notably operated at full capacity, while others make very limited use of the facilities which they have and are conducted rather wastefully.

The book contains literally several hundred most valuable major conclusions which deserve to be digested by school authorities and architects. The tentative checking schedule which the author proposes for analyzing the utilization of buildings is perhaps the most valuable suggestion in the book and, if taken without the percentiles proposed, places in the hands of school authorities a splendid tool for evaluating the utilization of any building. Careful answers to each of the questions proposed will produce a picture that will inevitably bring out the flaws in the organization of any school and in the planning of any building, and should make vast improvement readily possible.

The book shows that while some schools use academic rooms 90 per cent of the time and have libraries in excess of the standard week, there is extremely poor adjustment in the use of special rooms like the music rooms, the auditorium, the cafeteria. While it is the general conclusion that these rooms in most schools are too large, it is more than likely that the real difficulty comes from the fact that they are not properly utilized, and that the daily program is made up without considering their capacity occupancy.

One of the valuable tables in the book suggests the average number of square feet per pupil station as found in the buildings studied. This table, as do other tables in the book, clearly indicates the lack of study of maximum and minimum requirements. The following excerpt will make the point clearer than any amount of discussion.

Square Feet Per Pupil Station

	Lowest	Highest	Average
Academic Classrooms	7	28	16.3
Libraries	10	42	21.4
Science Lecture	9	53	17.6
Cooking Laboratory	20	97	33.3
Cafeteria	5.1	18.0	7.8
Auditorium (seats in curved rows)	6.8	11.0	7.7
Auditorium (seats in straight rows)	4.7	13.8	6.7

The book is a distinct contribution to the subject of high-school planning. It is to be hoped that the author will follow up his technical work with a simple statement of the main findings in form that can be readily used by the average principal and superintendent in the medium-size and smaller communities.

SUPERINTENDENTS TO CLEVELAND

The Department of Superintendence of the N.E.A., will hold its 1929 convention at Cleveland. The dates are to be February 24 to 28, and exhibits as well as meetings will be located in the Municipal Auditorium.

PROMINENT EDUCATORS FIND

The AMPICO

AN INDISPENSABLE PART OF THEIR SCHOOL EQUIPMENT

"The Ampico is already proving of considerable help to our teachers and affords no little pleasure to the students."
HAROLD RANDOLPH, *Director,*
Peabody Conservatory of Music, Baltimore, Md.

"The Ampico has greatly improved the work in our classes, and has given our students a view of the best in music literature that could be obtained in no other way."
HAROLD L. BUTLER, Dean,
College of Fine Arts, Syracuse University

"The Ampico in our school has undoubtedly been of great value, because of the highly artistic nature of the reproductions of the works of the great masters."
CHARLTON LEWIS MURPHY, Director,
Zeckwer-Hahn Philadelphia Musical Academy

"With the splendid additions you are making to your library of recordings, we are more and more able to extend the use of the Ampico to cover the pre-classic and ultra-modern periods."
ALEXANDER RUSSELL, *Director of Music,*
Princeton University.

"We find our Ampico useful in so many ways that it is difficult to enumerate them all."
H. C. MACDOUGALL, Professor of Music,
Wellesley College, Wellesley, Mass.

"The reproductions of the Ampico are as perfect as the artists' actual performance. It has been of inestimable educational value."
GEORGE FOLSOM GRANBERRY
Director, Granberry Piano School, N. Y.
Director of Music, University of Georgia Summer School

"In the professional music school, the Ampico makes it possible for those aspiring to public careers in music to become thoroughly and quickly acquainted with the greatest examples of creative and recreative art."
SIDNEY SILBER, *Dean,*
Sherwood Music School, Chicago, Ill.

"I find the Ampico a thoroughly sensitive and artistic medium, Its adequate repertory puts me in command of the essential materials of piano literature. Its contribution to the effectiveness of my work is a distinct one."
G. S. DICKINSON, Professor of Music,
Vassar College, Poughkeepsie, N. Y.

"The Ampico permits students and teachers the same ready access to musical literature as a library or an art gallery provides in other fields."
ROY DICKINSON WELCH,
Professor of Music History and Appreciation, Smith College
Northampton, Mass.

"I should like to express my keen satisfaction with the Ampico which is the latest piece of equipment added to our music department."
CHRISTOPHER J. THOMAS, Professor of Music,
Wells College, Aurora, N. Y.

"We have selected the Ampico after most careful tests. We believe it to be a superior reproducing instrument. Its library of music is most complete."
PETER W. DYKEMA, Professor of Music Education,
Teachers College, Columbia University, N. Y.

A preponderant majority of Schools, Colleges and leading Educational Institutions after comparative tests, have purchased the Ampico, finding that it alone provides:—A fidelity of performance comparable to the actual presence of the artist—A greater number of artists to illustrate musical appreciation courses (*practically every great pianist of modern times may be heard through the Ampico*) — A library of recordings embracing the full range of musical literature.

VIEWED FROM EVERY POINT, UNPREJUDICED ANALYSIS HAS DEFINITELY ESTABLISHED THE OVERWHELMING SUPREMACY OF THE AMPICO.

THE AMPICO CORPORATION
Educational Department
29 West 57th Street New York City

Here Are The Reasons



[Write for Samples]

Why Progressive Educators SPECIFY Walraven Health Book Covers

1. They are daily instructors in the fundamental rules of health, neatness and thrift.
2. They are one-piece covers, easy to put on, and fit snugly.
3. They are made of extra heavy Kraft paper, stay on and wear well.
4. They make a worn, soiled book into a neat, attractive one that the child likes to handle.
5. Two sizes fit all books.

The health of your future citizenry depends a great deal upon the formation of proper health habits in the schoolroom today.

A. T. Walraven Book Cover Company

Dallas Chicago

"The Cover With the Double Corners"

PUBLICATIONS RECEIVED

Iowa Silent Reading Examinations. By A. N. Jorgensen. Bulletin No. 3, May, 1927, of the Iowa Studies in Education. Paper, 76 pages. Issued by the University of Iowa, Iowa City. Since the development of tests in reading for the high school, it has been discovered that they obviously have not been validated in accordance with the six specified aims and that they do not test many of the skills, knowledges, and abilities as outlined by Horn and McBroom. The need for the Iowa silent reading tests grew out of the study and realization of the limitations of scope in the present reading tests. The pamphlet discusses the value of the reading tests, and gives the results of a study involving the validity, reliability, and ease of administering the tests.

The examination is divided into six tests consisting of sixteen test parts. The tests give the students an idea of their ability to study efficiently with the use of books. They also discover pupil's weaknesses in silent reading of the work type, with the result that the teacher is able to take remedial measures with a consequent improvement of the pupil's attack on the lesson assignment.

A summation of the test scores should reveal a profile of the pupil's ability to read silently in activities of the work type. But more important will be the scores on the separate tests that reveal inability in particular skills necessary for efficient study and comprehension in silent reading. The Iowa tests have gone farther than any other reading tests in that they measure a number of different phases of silent reading. The identification of additional skills should result in the preparation of devices for measuring them.

United States Government Master Specification for Lubricants and Liquid Fuels. Price, 15 cents. Issued by the Government Printing Office, Washington, D. C. The pamphlet contains 121 pages devoted to master specifications and methods of sampling and testing gasoline, illuminating oils, fuel oils, lubricants, and petroleum and petroleum products. The material has been revised up to January 21, 1928.

Statistics of Public High Schools, 1925-26. By Frank M. Phillips. Bulletin No. 33, 1927. Issued by the Bureau of Education, Washington, D. C. This report contains the statistics of public high schools for the school year 1925-26 and represents the advanced sheets from the biennial survey of education of 1924-1926. The principal items listed in the report are number of schools, administrators, supervisors, teachers, pupils, graduates, enrollment in teacher-training courses, military training, size of libraries, value of grounds, buildings, and contents, and expenditures for capital outlay.

The report lists 21,700 public high schools by states, as well as 17,710 high schools which sent in a complete report in 1926. In 1924 there were 19,442 pupils listed. In 1926, reports from high schools showed an enrollment of 3,065,009 pupils, while state departments show 3,757,466 pupils. Including junior-high-school pupils in 1924, enrollments of high-school pupils are reported as 2,950,408, and in 1926 as 3,741,073. The number of boys enrolled has increased 75.7 per cent since 1920, while the number of girls has increased 56.6 per cent. Since 1924, the number of boys has increased 22.2 per cent, and the number of girls, 19.5 per cent.

The data on high schools show that the public high school is continuing its rapid rate of growth, that it has decreased the congestion in first-year enrollment, and that there is a great increase in the proportion of pupils that remain in school for the full four years of work.

A study of the property and expenditure for high schools shows that in 1926, there were a total of 4,873 high schools, housed separately. There were a total of 4,963 schools with buildings and grounds having a total valuation of $1,166,771,911, while 4,973 schools reported buildings valued at $110,225,793. During the school year, 2,193 high schools spent $87,672,504 for sites, buildings, and improvements. This is an average expenditure of $35,869 for each high school reporting, and $47,564 for each reorganized school.

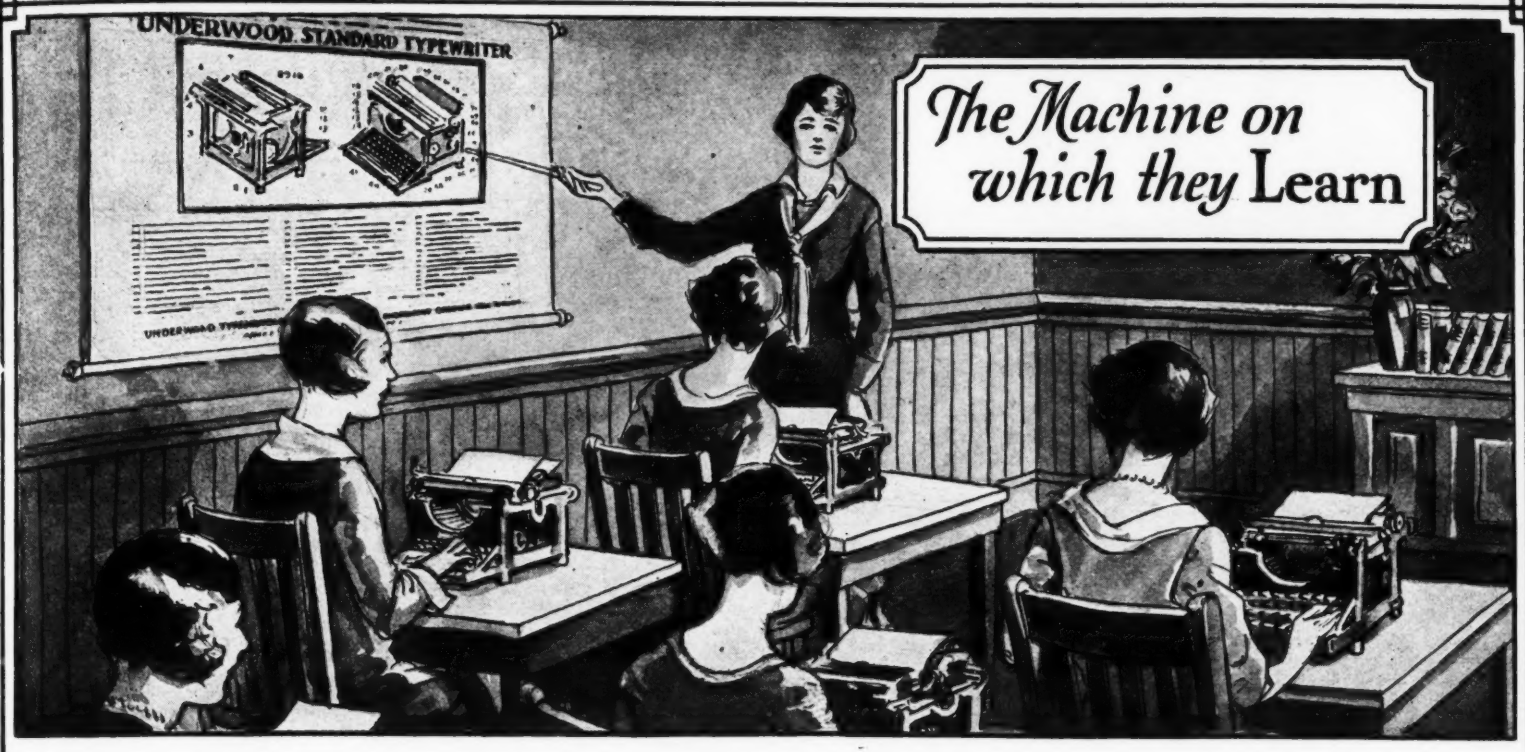
Rating of Applicants for Appointment. Issued by the board of education at St. Louis, Mo. The pamphlet is a reprint of an article contained in the 1927 report of Supt. John J. Maddox. It indicates that future appointments of teachers will be made on the basis of merit to be ascertained by examination or other evidence of special fitness. The pamphlet deals with the scoring, numerical values, and standards used in rating the applications of those who apply for teaching positions in the St. Louis schools. In the rating of teacher applicants, such factors as personality, physical fitness, specific training, professional training, general training, experience in teaching, and age are taken into consideration.

Research in Relation to Teaching. By David Spence Hill. Bulletin No. 1, 1928, of the extension division of the University of Alabama. The pamphlet discusses the nature and types of research and their applications in education. The study reveals that scores of scientific problems may be derived within the twelve subjects of educational administration; namely, comparative studies of governmental control, finance, child accounting, exceptional child, curriculum making, psychological studies, the teaching and supervisory staff, buildings and equipment, nature and effects of reports to the public, problems of vocational education, conservation of health, and complete educational or vocational surveys of a community and state, or of a selected phase of education. A brief bibliography on educational research is appended at the close of the report.

A Handbook of Information for School Trustees and Teachers. Paper, 12 pages. Prepared and issued by Mr. L. S. Newton, superintendent of schools of Siskiyou county, Calif. This little booklet contains information concerning the provisions of the new law affecting teacher tenure in the state of California. It is intended to make teachers familiar with the provisions of the law, especially with respect to the employment, classification, and dismissal of teachers. It contains the provisions of the law on teacher tenure, as given in the code and as interpreted by the courts and the attorney general of the state.

The rules provide that school trustees may employ teachers for the ensuing year on, or after May 2. Notice of employment must be given the teacher by the clerk, or secretary of the board, or it must be mailed by the clerk in the post office, with return postage, addressed to the teacher at his last address. All newly appointed teachers must give notice of acceptance within twenty days after notification of employment. The board of trustees must send notice of employment of teachers to the county superintendent.

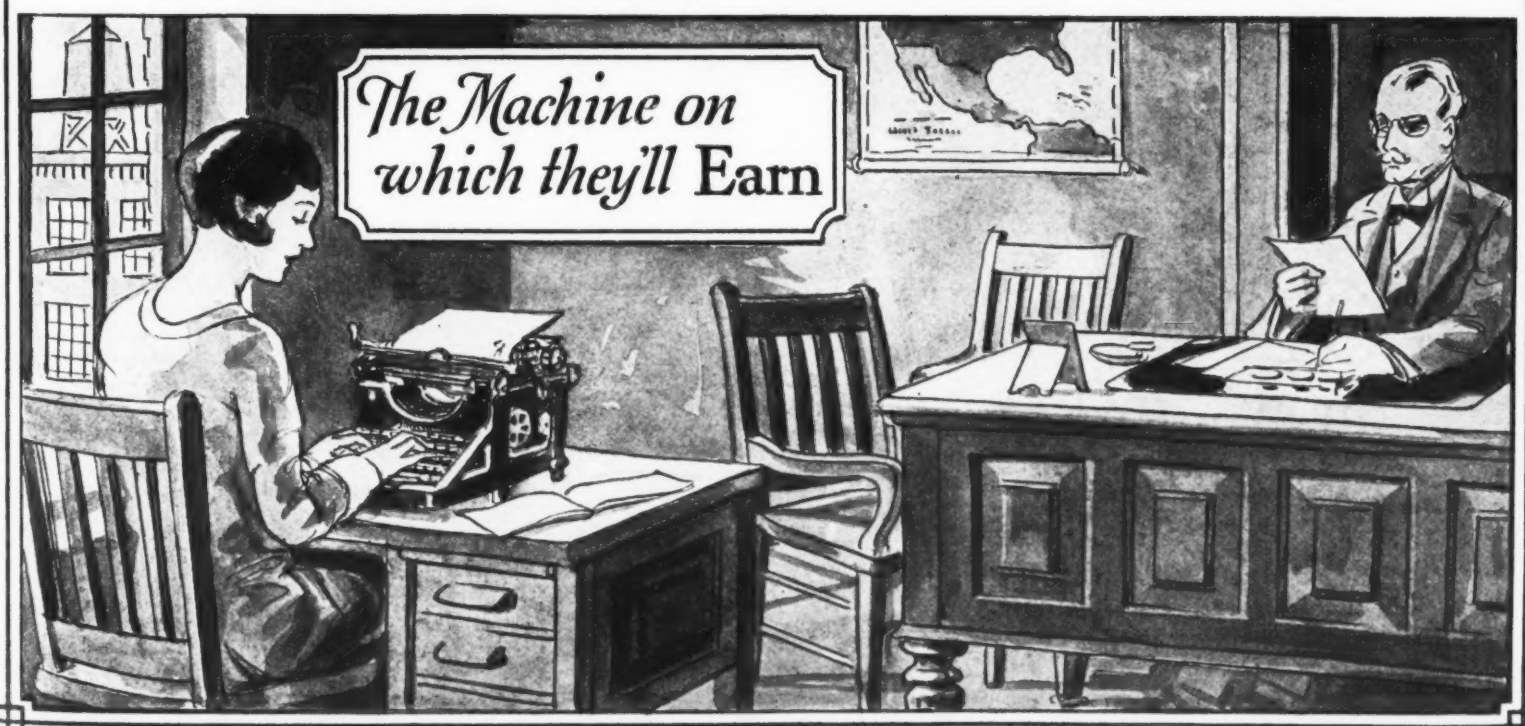
Under the rules, the board of trustees must classify each teacher as a substitute, a probationary, or a permanent teacher. Teachers may be dismissed for immoral conduct, unprofessional conduct, incompetence, unfitness for service, and persistent violation of or refusal to obey the laws of California.



THE close connection between *learning* and *earning* is becoming more and more apparent in the school world. In business offices, nearly 3,000,000 Underwoods are in use today, outnumbering any other make. In typewriting instruction in the United States and Canada, Underwoods *outnumber all other makes combined.*

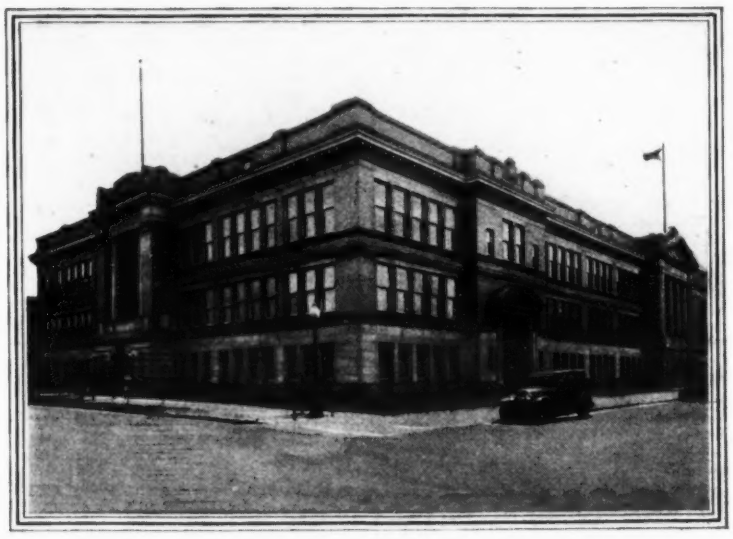
School executives realize the soundness of having the student completely master one machine—the machine that leads in the business world—before practicing on other kinds. So they choose the Underwood—the machine used *exclusively* in 3,018 schools in the United States.

UNDERWOOD
STANDARD TYPEWRITER



NEW— *these washable window shades*

that pay for themselves in service



Elkhart High School, Elkhart, Indiana—Tontine shaded

Knowing how fatal to building budgets are unforeseen replacement costs, careful school boards give painstaking consideration to equipment such as shades. "How long will they last?" is the big question.

Tontine, the new washable window shade, sets a new standard in shade service. Year in and year out it can be kept as bright and clean as the window—it need only be scrubbed with soap and water.

Tontine shades offer the sturdiest resistance to wear and tear—they never fade, pinhole or crack. They owe their astonishing durability to the same basic material as Duco, the famous pyroxylin finish. They are made washable by a unique process of impregnation.

In spite of their unusual service, the initial cost of Tontine shades is not high. You will find the complete facts valuable in your work in behalf of schools.

E. I. DU PONT DE NEMOURS & CO., INC., NEWBURGH, N. Y.
Canadian Distributor: CANADIAN FABRIKOID, Limited, New Toronto, Ontario, Canada



DU PONT

TONTINE

REG. U. S. PAT. OFF.

THE *WASHABLE* WINDOW SHADE

E. I. du Pont de Nemours & Co., Inc.
Newburgh, N. Y. Desk A-5.

Please send me complete and full information about Tontine, the washable window shade.

Name.....

Address.....

For the Children's Sake . . . . . EVERWEAR!



IF children must play, then they must have a place to play — and something to play with. Give them the safest, most durable, most enjoyable things to play with that you can find—EverWear!

For 20 years EverWear Playground Apparatus has been recognized as the standard of quality. There are 127 different items from which to plan your equipment.

EverWear not only entertains, but it develops muscles and ruddy health and red blood.

Schools and other children's institutions the country over have equipped their playgrounds with EverWear Playground Apparatus, and have found it superior. Also it is most economical, because of its far greater durability.

Send for Catalog No. 20 which gives complete information. We shall be glad to help you plan your playground — without obligation to you — if you will tell us your requirements.

THE EVERWEAR MANUFACTURING COMPANY
Springfield, Ohio

EverWear
PLAYGROUND APPARATUS

HARRIS UNIT MADE SCHOOLS

Comply With All Building Codes

Strongest Buildings of them All

Light—Snug and Perfectly Ventilated



EXCLUSIVE FEATURES

Patented from Foundation to Roof

Here's the solution of the school question for fast growing districts and the limited school board budget. These splendid buildings recognize no competition where quality of material, construction strength, and the welfare of the children are considered. No other buildings can give you our ingenious in-built features, for this construction is exclusive in Harris Schools and is covered by patents from foundation to roof.

FREE

Blue Prints and Specifications of Materials and Construction, with large sized Photo Prints of Schools recently built by Our Experts.

MODEL CLASSROOMS

for 40 to 400 Pupils in 10 Days!

Harris Unit-Made buildings are invariably specified when the bids are opened. Why? Simply because they give you stronger, better made, better looking buildings at by far the lowest prices. All made possible because they are built in the largest and best equipped factory in America, backed by our own lumber and millwork factories. And we pledge ourselves to give you the satisfaction you have a right to expect.

Our School Experts are waiting to help you!

HARRIS BROTHERS CO.

35th and Iron Streets

NEW YORK **CHICAGO, ILL.** DETROIT

Use Our Bureau of Information Freely!

LET THE CRY FOR MEN BE ARTICULATE

(Continued from Page 42)

matic service, with the idea of paying for the privilege of teaching. Higher salaries than are now being paid, actually in hand and not on paper, would help to offset the ill-starred reputation for enforced penuriousness that has forever shadowed the profession. Even the college instructor who, as was stated, usually comes a litt'e higher on the payroll than his less fortunate brother, has been made to suffer from the opprobrium attached to teaching as a means for gaining a livelihood. One of my colleagues had an experiencee not long ago that illustrates this. Sent to an exodontist by his family dentist, the accompanying note introduced him as "Doctor." "Are you practicing, Doctor?" asked the Exo. "Oh," he replied, "I'm not an M.D., just a Ph.D." "I see," was the answer; "you're one of these fellows who has a degree he can't make any money out of."

A young professor in one of our western universities described to me an experience he had had that further illustrates the layman's attitude toward those who are engaged in teaching as a lifework. While driving along a country road one rainy night, he noticed a stalled automobile by the roadside and, seeing the owner tinkering with the motor, stopped and proffered help. The owner welcomed him. "I've been fooling with this danged thing for over an hour," he said, "and I can't get her to run." The professor examined the wiring system and the distributor. The latter he found about one third full of water which he dried out and presently the motor was functioning in its usual way. The owner looked at him in some amazement. "What do you do for a living? Garage business?" he inquired. "No, I'm a college professor." The owner was dubious. "The h—— you are," he expostulated. "Well, that's the first time I ever knew a teacher could *do* anything."

One of the real difficulties in the whole teaching situation lies right there. Although, with changes in the social order, our conception of the purposes of education are constantly changing, we not only take the teacher and his task pretty much for granted but as something so firmly molded and fixed by tradition that even time cannot alter or space make inconstant.

Respect for Profession Lacking

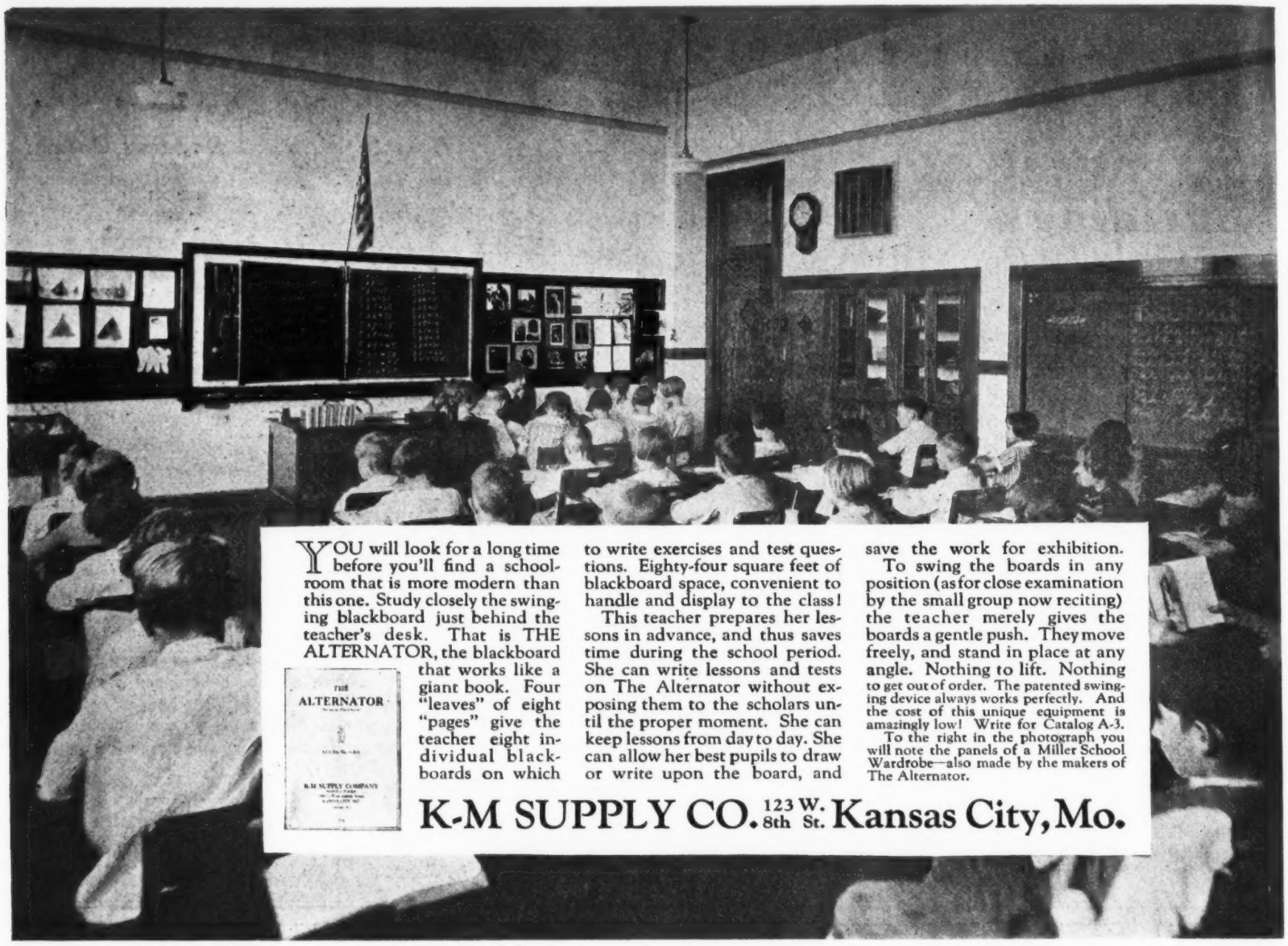
If the young man now going into teaching may be described as "too physical'y weak to stand the strain of other occupations, and too mentally slow to know what is going on about him in the world of affairs," what is to be expected of him in the performance of the increasingly complex duties of the present-day teacher? Certainly nothing much. Even if he makes the effort to master his job rather than be mastered by it, the world is moving at too rapid a pace to permit him to completely emerge from an enfeebling state of bewilderment. Trying to teach in a modern school with equipment and training that would have let him "get by" in the nineteenth century puts him in a class with the young man in Mother Goose who went to catch a whale.

One of the worst phases of being an outstanding teacher lies in the fact that so much is expected. Before he may lay claim to distinction in that field, one must know something about everything and be able to do well most anything that is done well by ordinary persons in other walks of life. It is the only way to gain the respect of the public and, because teachers as a class usually have developed along some one narrow line, they have been imposed upon. That is natural—we impose upon persons for whom we have no respect. And because the teacher "professes" to know he is watched. Outside of the classroom he may appear as extraordinarily pedantic or unusually ignorant. The young man wanted in teaching, traced to his lair in the college-fraternity house, does not react to the appeal because he has been able to impose upon his instructors; he feels superior to them. The instructor, having passed on to his students all he knows, is, psychologically, *non compos mentis* in their eyes. This is a strong disadvantage. In no other profession, even in preaching, where there is always the possibility of pondering upon the mysteries of the life hereafter, is this such a bar to the enlistment of promising recruits.

It is difficu't to determine what the public wants in the matter. Each community likes to feel that it has a good staff of school-teachers and it usually chooses a board of education committed to employment of only the best. But it displays litt'e respect for these public servants after they are secured. Knowing this, the type of person who might go into the profession and, through breadth of view and sympathetic guidance, strengthen it, refrains. What is the answer? I asked the president of a well-known normal school how he thought this condition might be overcome.

"There are but three ways by which we can influence strong young men to take up teaching," he said. "First of all, we shall have to put the profession on a plane with the other professions. We have been trying to do that, so far as the mechanics of the thing are concerned, setting up state requirements, demanding a long course of professional preparation before teaching is undertaken, and introducing certain lines of specialization.

"Our attempts to professionalize teaching and to enlist public interest has led us, of course, into appeals for more money. For school buildings and colleges, the tangible things that the



public can see, money has been forthcoming; but for salaries and fees there has been but enough to keep the wolf from the door. To get the young man we want, when once we have built up a public respect for teaching as a profession, we shall have to pay as much as that same young man could earn in some other occupation. In fact, because the profession has been looked upon lightly, we shall doubtless have to pay more.

"By close figuring on our part we are succeeding in this college in building up a faculty of men who are wide-awake, dress well, drive respectable automobiles, and who take part in the social activities of the community much as do the men from the other professions. In other words, we are weeding out those who are mentally and socially lame, halt, and blind. We find that we cannot get good material among the men students unless we provide living examples that the teaching profession is a good one to be in. To do this we are compelled to pay more, but it is surprising what a man can do on his income if he learns the proper things to emphasize.

"To the man in the street who supports a family on $3,000 a year or less, a wage of $3,500 or $4,000 for the teacher who 'does nothing but talk' seems not only sheer extravagance but highly unnecessary. That which he fails to see, however, is that the social and educational demands made upon the teacher, who must live close to the school and who must give to every public cause, to say nothing of spending his summers and his savings in pursuit of the newest developments in education, subtract so much from the teaching wage that there is hardly enough left to meet running expenses. The young man we are after knows this, or finds it out so after coming into teaching, and, unless he can do well the three things mentioned, he shuns the profession or drops it for something more promising."

Only a few of the hardiest teachers have had the temerity to charge for services outside the classroom. Fees for public speaking are sometimes demanded but are seldom paid with the willingness that is common in other lines of professional endeavor. A college professor of psychology was not long ago requested to speak on his specialty before a parent-teacher association in a neighboring city. "We haven't any money to pay you," the secretary had written, "but we hope you will come anyhow." Wishing to be of service, he did go, made his talk and waited to hear the remainder of the program. The secretary called for the treasurer's report. The latter beamingly arose and announced that the club now had $75.40 balance; was there anybody present who would like to suggest a way to expend it? Various suggestions were offered but it was finally decided, in the presence of the perspiring professor, to use the entire sum, if necessary, to secure a popular elocutionist for the next meeting.

Fortunately, there are exceptions to this prevailing attitude, this apparent unwillingness to pay the teacher for outside labor or lectures. A professor at the University of Chicago told me that a few months ago he was asked to deliver two lectures before mixed groups in a southern city. Feeling that he would not have time to prepare and not being very desirous of making the hard train trip, he set his fee at $200 per lecture. "Imagine my surprise," he said, "when they wired me to come on."

Under the present system of training, the young man who is preparing to be a college professor, the branch of teaching for which the higher degrees are required, invests as much money in his education as those who prepare for the other well-established professions. Ignoring entirely the salary status in the higher institutions, is there any reason why he should not charge an equitable fee for duties extraneous to the work for which his salary is paid? A bill was introduced in the Iowa state legislature that, if passed, would have made it impossible for a college instructor in a state institution to accept fees for work done outside the institution. Its failure of passage gave strong indication that Iowa is not willing to drive its strongest men out of teaching.

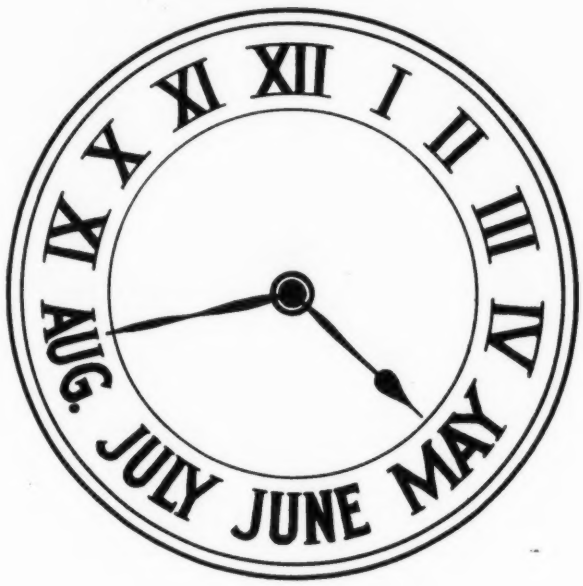
If we are going to make the cry for men articulate, we may well begin with an assurance of more money, either in the form of salaries or fees. If there is an unwillingness to do that, the schools must somehow get along without the "masculine courage and masculine ability" needed to parallel "feminine conscientiousness, thoroughness and sympathy." But it will not be necessary to get along without them if the men already in the profession will take a new hold on themselves and stand uprightly for the things to which they have dedicated their lives.

Professions Built by the Strong

Meanwhile, the strong young man burning with a desire to be of public service should be encouraged to try his hand at teaching, in spite of the long period of training and the shortcomings of the profession as it now stands. There is no profession exempt from shortcomings. Each of them has been built upon the shoulders of its strong young men and the desirable wage or income has failed to arrive until, through the sheer strength of these men, it has been forced to follow. In the history of teaching their numbers have been small but, wherever their heads have appeared above the crowd, strong but younger men have gathered about them. In the United States at the present time there are approximately 1,000,000 teachers engaged in instructing approximately 27,000,000

(Concluded on Page 169)

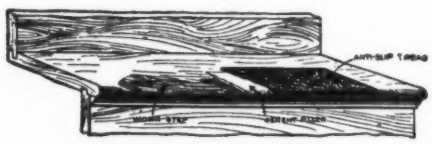
TIME TO REPAIR



YOUR WORN AND UNPROTECTED STAIRWAYS WITH

FERALUN
Anti-Slip Treads

Worn and slippery stairs in public buildings are a constant menace to life. In schools particularly where countless children romp heedlessly up and down stairs from floor to floor they are indeed treacherous and should not be tolerated under any circumstances.



Treads used in repairing and making safe, worn steps of any material. The same type is used in new concrete steps

The problem is such an easy one to solve that there is no need for stairway accidents in any school. FERALUN ANTI-SLIP TREADS not only provide safe walking but they represent a real economic investment. Feralun Anti-Slip Treads will practically outlast your building — eliminating repairs in the future.

You should plan this year on stair-way replacements for the last time.

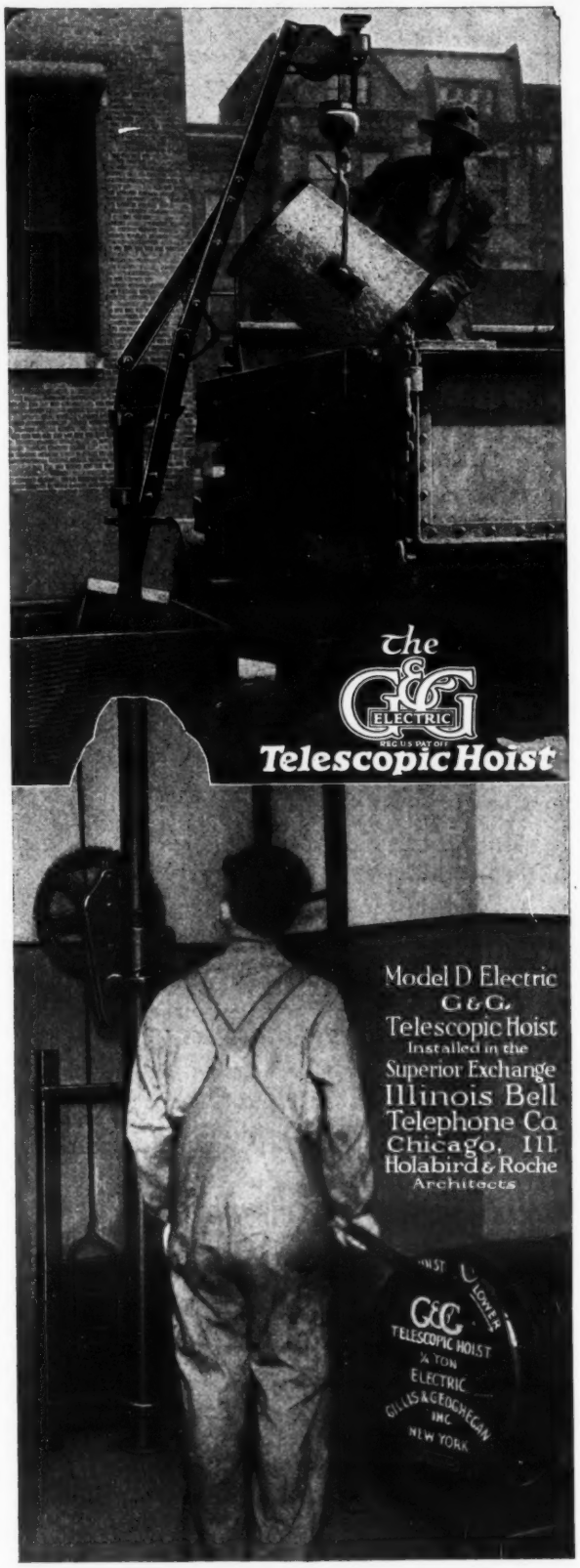
We will be pleased to mail detailed sheets and samples of FERALUN Treads to any school official or architect upon request.

AMERICAN ABRASIVE METALS CO.

50 CHURCH STREET, NEW YORK, N. Y.

CHICAGO BOSTON PHILADELPHIA BUFFALO PITTSBURGH SAN FRANCISCO

G&G G&G



This Ash Removal Equipment is popular with schools —

BECAUSE it provides positive SAFETY in operation. Sidewalk opening is fully protected — always enclosed ***automatically*** by the G & G Sidewalk Doors and Spring Guard Gate.

Because it is ECONOMICAL to operate. Two men do work of four and more. Electric current consumption extremely low.

Because it provides SPEED. Cans are raised 60 ft. a minute.

The sturdy construction assures long life and freedom from repairs. An electric or hand-power model to fit every school need. In use in 1643 schools.

Catalog on request

GILLIS & GEOGHEGAN

551 West Broadway New York

G&G G&G

for floors of all kinds



The Foundation of Cleanliness

Cleanliness — in schools — begins with *clean floors.* Unless floors are *clean* and sanitary, time and money spent in cleaning other places is virtually wasted. Furthermore, unless floors are *clean,* it is not likely that a teaching staff can instill into pupils those habits of cleanliness which are so important in developing character.

Sweeping, even ordinary mopping or pole brush scrubbing, cannot keep your floors "the foundation of cleanliness" you would like them to be.

For adequate school hygiene, floors should be scrubbed or waxed and polished with the FINNELL at least twice a month. This removes dirt so thoroughly that a daily sweeping between FINNELL cleanings will keep floors free of dangerous accumulations and objectionable odors.

Tests in hundreds of school buildings have shown that to get floors as clean as the FINNELL Electric Floor Machine scrubs or polishes them would require a prohibitive expenditure of time, hard hand labor, and money.

The FINNELL also keeps floors looking and wearing their best. Wood, linoleum, terrazzo, rubber tile, composition, mastic, — the FINNELL brings out their soft, rich luster as nothing else can.

There is a right FINNELL SYSTEM for every size school. In many cases, the economy it effects in cleaning costs is sufficient to pay for the equipment in a short time.

Free Booklet

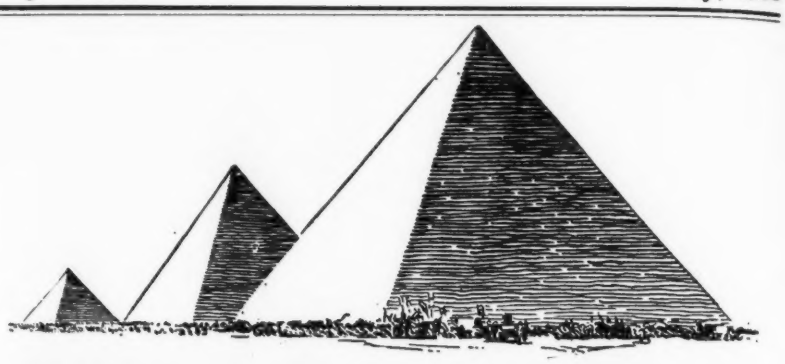
You will find this information on safe school floor hygiene of timely and practical nature. Before you make up your 1928-29 cleaning budget, investigate this more efficient and economical floor-cleaning method now used by over 12,000 institutions and business concerns. Address FINNELL SYSTEM, INC., 255 East St., Elkhart, Ind. (District Offices in principal cities)



It scrubs
It waxes
It polishes

FINNELL
ELECTRIC FLOOR MACHINE

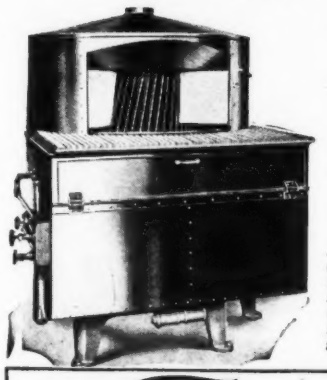
for business
for homes



When Labor was Cheap
and time was no consideration

the world famous pyramids were built. But in this high-speed day, labor is at the peak of its earning power. Time *is* money! Especially — where volume dishwashing and rapid turnover are vital to successful food catering . . . economy demands Colt Autosan Dishwashing Machines to assist costly man power and replace obsolete equipment. Fast, thorough, reliable, they not only earn their own cost and upkeep in a single year, but they save minutes, mess, space, confusion — and dishes! Six models — from $615.00 to $3200.00 and each a Colt product — your absolute assurance of mechanical dependability! Consult your Kitchen Equipment House or write us for descriptive literature.

Colt's Patent Fire Arms Mfg. Co.
Autosan Division
Hartford, Conn.



MODEL — Rotary Type
A marvel of compactness and efficiency. Requires small floor space yet has large capacity. An ideal unit for hotels, clubs, restaurants and hospitals. Handles all table ware for 1000 persons at a meal. Copper $1750, Monel $2100.

6 MODELS handling all tableware for 500 up to 2500 persons per meal. All available in both copper and Monel metal.

COLT AUTOSAN
"The Machine That Washes All Tableware CLEAN!"



KITCHENS THAT PLEASE

Kitchen Equipment manufactured by S. Blickman for schools and colleges, is neat appearing, sanitary, durable and labor-saving.

Our assistance in planning an efficient layout of the kitchen will prove satisfactory in every way.

We will cheerfully furnish any prospective purchaser with a list of our school installations and he can get the facts direct from the users.

We also manufacture Cafeteria, Restaurant and other Food Service Equipment.

S. Blickman MANUFACTURERS INC. FOOD SERVICE EQUIPMENT
532 Gregory Ave., Weehawken, N. J.

UHL STEEL

Strong, Light, Durable, Handy, Sanitary and Comfortable

Cafeteria Furniture

Steel furniture, with all its advantage, designed directly **to meet school conditions;** built **for specific school uses;** proved successful **by years of actual use** in schools—there you have the story behind this line of UHL **Steel**



No. 156 "LinUhl" Chair

Chairs, Stools, Tables

UHL **Steel** chair frames are built of U-Shaped channel steel, welded into one solid unit at points of greatest strain. They are wonderfully strong without being clumsy; durable without being heavy; comfortable yet economical of space; handsome in style without loss of sanitary simplicity in design. The same features of excellence are incorporated in our other recommended items.



This test shows strength of back fastenings at seat and rigidity of bracing of legs and their fastenings to seat.

Standard Equipment in Hundreds of Schools and Industrial Plants

There are thousands of our No. 156 Chairs now being used in School Cafeterias. This is only one of our many popular items. Full range of styles, sizes, and finishes to select from.

Our complete catalog describes many other items which fill special school needs. Let us send it to you for your information files.

THE TOLEDO METAL FURNITURE CO.
2093 Hastings St., Toledo, Ohio.

THE TOLEDO METAL FURNITURE CO.
2093 Hastings St., Toledo, Ohio.
You may send catalog.

Name . . . . . .

Address . . . . . .

. . . . . .

(Concluded from Page 166)

children. In point of numbers it is a great profession; in point of outstanding teachers the percentage is far too low.

And, after all, for the young man who prefers to live in an intellectual atmosphere, the profession of teaching has its distinct advantages. His monthly salary, however small, comes in regularly, even in the face of panic in the money markets. His credit is good anywhere. Holidays are numerous. Working hours are comparatively short. Surroundings are pleasant. Youth abounds. And the opportunity to be of daily service to a large number of persons makes the "pleasant trade of pedagogy" pleasanter than any other on earth. Make the young man welcome in and acceptable to the local community, let him be a human being, and give him enough salary to enable him to save a little, and the call for his services will have been made articulate.

SICK LEAVES FOR TEACHERS

(Concluded from Page 44)

or two cases, it has been suggested that a teacher went to a hospital for an operation, involving several weeks of absence, when the operation might have been cared for during the preceding vacation, but the facts hardly warrant such an implication.

3. With the exception of the present school year, the rule has not placed an excessive financial burden upon the district. For several of the years, the difference between the salaries of the substitute teachers and those of teachers who were absent for reasons other than illness, was almost enough to pay teachers who were absent because of illness. In other words, there was not enough illness among the teachers to increase the regular payroll.

Since last September a very unusual condition has prevailed. No less than ten out of the hundred teachers of the system have had illnesses ranging from four to twelve weeks. But if such unusual conditions occur only one year in seven, the board will probably feel that this is not sufficient reason for revising the rule.

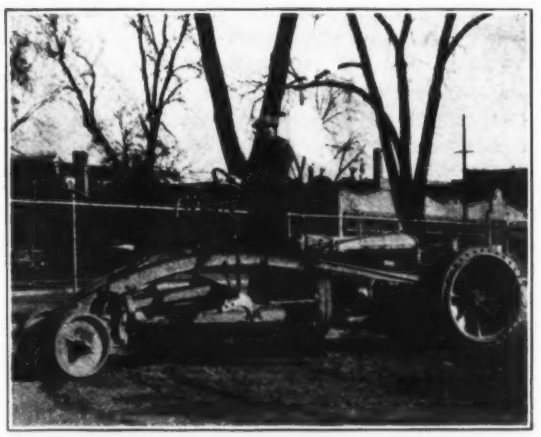
The experience of this one district seems to commend the rule as one that is at least a step toward solving the problem of how to be just both to the taxpayers and the teachers in dealing with sick leave for teachers.

LANDSCAPE DEVELOPMENT OF SCHOOL GROUNDS

(Concluded from Page 46)

however, do we see substantial and even beautiful school buildings with bleak and unattractive surroundings. They belie on the outside the splendid work that is being done on the inside.

The foregoing figures show the very small percentage of cost involved in carrying out this important development. To thinking people it becomes very evident that school-ground improvement is not a luxury which can be added or omitted as whim dictates, but is a most essential item in any well-rounded program of education.



THE ONE-MAN TRACTOR GRADER USED BY THE DENVER SCHOOLS.

CERTIFICATION FOR IMPROVING PROFESSIONAL LEADERSHIP

(Continued from Page 50)

cause of education locally is done more in a spirit of charity than in the thought that they may be rewarded for their efforts, even though the reward could be nothing more than the good will of their community.

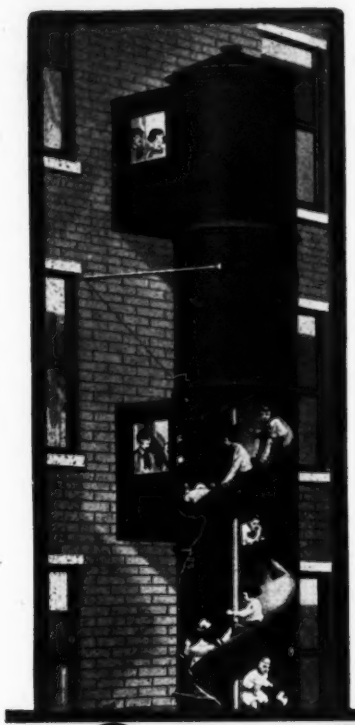
Elements of a Plan

Further, that very few superintendents have any clerical help and that each one is responsible for the supervision and compilation of the reports of the lay officials of approximately 50 different districts; that they have a relatively brief annual vacation, and that the method of their selection denies to them any substantial money reward for efficient service. All these facts taken together make it surprising that the district superintendents of this state should have attained the high degree of professional leadership that the membership of this organization possesses. What may we not accomplish if we set ourselves resolutely and unanimously to the task!

To be brief, any scheme of certification, looking toward the improvement of the professional leadership of district superintendents should include the four conditions stated below:

a) Any scheme of certification should not be retroactive. It should look toward improving the personnel to be selected in the future.

b) Any scheme of certification which may be set up should provide both a permanent and provisional certificate; first because the two grades represent the consensus of opinion expressed in the certification of administrative officers in other states; and second because such classification is in harmony with the standards already set up for teachers in New York state.



Were You *Lucky* Again This Year?

If fire has spared your school and your children another year—

remember that six school houses burn every day *and that the law of averages still holds!*

Plan now for the immediate installation of a Logan Spiral Slide—the fastest, safest, surest firescape ever developed. Write for an appointment with a Logan engineer.

Logan Firescapes



LOGAN CO.
Incorporated 1885
300 N. Buchanan Street
LOUISVILLE, KY.



They Need Plenty of Water!

Pure drinking water from sanitary fountains is vital to child health and growth. Century Sanitary Drink-King Fountains supply this need efficiently and economically.

The illustration shows our No. A-63, a flat back wall fountain with porcelain mouth guard. This is one of the many Century Drink-King Fountains specially designed for school installation.

Our new catalogue illustrates and describes the complete Century line of fountains—ask for a free copy.

Write for a free Copy of Our Complete Catalog



Century Brass Works, Inc.
Belleville, Ill. - - - U. S. A.

DRINK-KING Century TRADE MARK REG. U.S. PAT. OFF. BRASS WORKS INC. FOUNTAINS

c) The terms of the provisional certificate should be such as to stimulate professional growth on the part of all of those who aspire to a superintendent's permanent certificate.

d) While the certification scheme should not be retroactive, it should carry with it a reasonable opportunity for professional growth on the part of those superintendents now in service, who will find it necessary in the years to come to be abreast of modern educational movements in order to successfully compete with the younger men and women who will have had better preparation for professional service.

With reference to the last condition, there are certain difficulties confronting the district superintendent today in his efforts to secure adequate professional preparation while continuing in service. To meet this issue we have suggested to the Rural Education Department of Cornell University that they offer a series of short courses in rural-school administration and supervision either in midwinter or midsummer or both. While the final word has not been given, I am confident that Cornell University will be willing to organize a series of courses, two or three weeks in length, carrying full university credit, to be given in midwinter or during the summer session, if district superintendents signify a desire to have such courses offered.

There are a goodly number of men in this state who have worked constantly over a period of years to secure adequate financial recognition of the office of district superintendent. The last legislature acknowledged their efforts, and beginning July 1, next, all of you will enter into the reward for their labors. They can tell you better than I that this goal was not an easy one to attain and could be attained only by convincing the commissioner of education and the governor of the state that the district superintendents propose to improve their own capacity for professional leadership. In this legislation we are guaranteed a reasonable minimum salary[12] which is the first step toward professional advancement. If you can go to the legislature this year and convince its members that we are demanding higher professional qualifications not for our own personal interests, but for the good of the children whose educational destiny is in our hands, I am satisfied that the legislature will accede to your request and that we will have gained a victory that will entitle the association to a respect on the part of the public and to a hearing among the professional leaders of progressive education that will bring prestige to rural leadership in this state. To me this step seems vital to any program looking toward the improvement of rural education.

In America the administration and supervision of rural schools has never been rewarded nor recognized as has city-school supervision. Yet, there is no insurmountable reason why, within the next decade, New York state should not assume a foremost position among the states of the Union in the local leadership of rural schools, why we should not accomplish such progress as to cause other states to turn to us for inspiration and leadership, why we should not make the district superintendency a position of leadership second to none in the country.

[12]New York Education Law, 1927, p. 128, Sec. 389.

THE SUPERINTENDENT AND THE APPLICANT

(Concluded from Page 51)

gown or a marvelous coiffure, it either shows too little else, or, perhaps, too much. I have noticed a tendency on the part of male members of boards of education to study such pictures carefully, but seldom have I known them to consider the originals seriously as possible teachers for their boys and girls.

One other question sometimes bothers the teacher making application for a position in the smaller city school systems. To whom should the letter of application be directed? There is only one answer, it seems to me—to the superintendent of schools. It is generally conceded at the present time that it is the business of the superintendent to nominate teachers to the board of education, and no superintendent is anxious to have teachers employed whom he has not nominated. He is well aware, too, that many times applications are directed to board members with the idea that they will get special consideration. Any wise superintendent will beware of applications not directed to him. Other things being equal, the teacher who fails to recognize the superintendent in her application is not desirable to have in the school system.

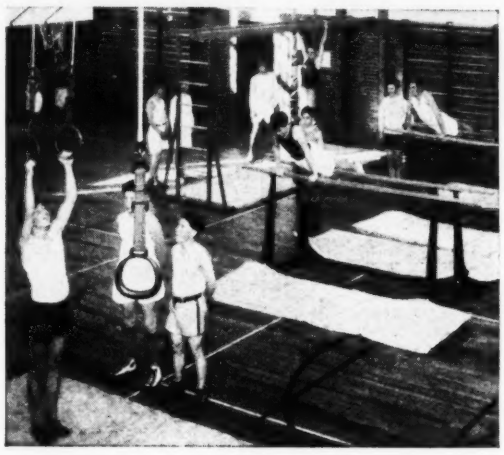
In conclusion, then, one might say that a simple inquiry concerning vacancies, or a neatly written, well-worded letter of application which states enough personal facts to arouse interest and gives the names of the most recent references possible, is perhaps the sort of letter most likely to get consideration. This letter should contain an honest photograph of the writer, a stamp, or a stamped and self-addressed envelope. It should be directed to the superintendent of schools, his name and initials being used when at all possible. The rules of polite correspondence regarding paper, ink, and letter form should be scrupulously observed. No superintendent will willingly ignore such a letter no matter how impossible it may be to give the applicant a place.

—Mt. Vernon is the first school system in New York state to obtain a phono-audiometer for testing the hearing of normal children. Tests of the entire school population has been begun under the direction of Dr. Marion Reed Stanford of the medical inspection department.

NARRAGANSETT

Standard Equipment

GYMNASIUM-PLAYGROUND-STEEL LOCKERS



Interest — Enthusiasm — Results —
with
Narragansett Gymnasium Equipment

NARRAGANSETT MACHINE CO.

CHICAGO — 1504 Monadnock Block
PROVIDENCE, R. I. — *Established 1882*
NEW YORK — 214 East 40th St.



SOUND PROOF PARTITIONS

between
AUDITORIUM
and
GYMNASIUM

Architects have proven that the sound-proofing efficiency of Hamlin's Sound-Proof Doors and Folding Partitions makes possible economy of space and simplification of plans that reduce building costs and greatly improve the utility of adjoining rooms.

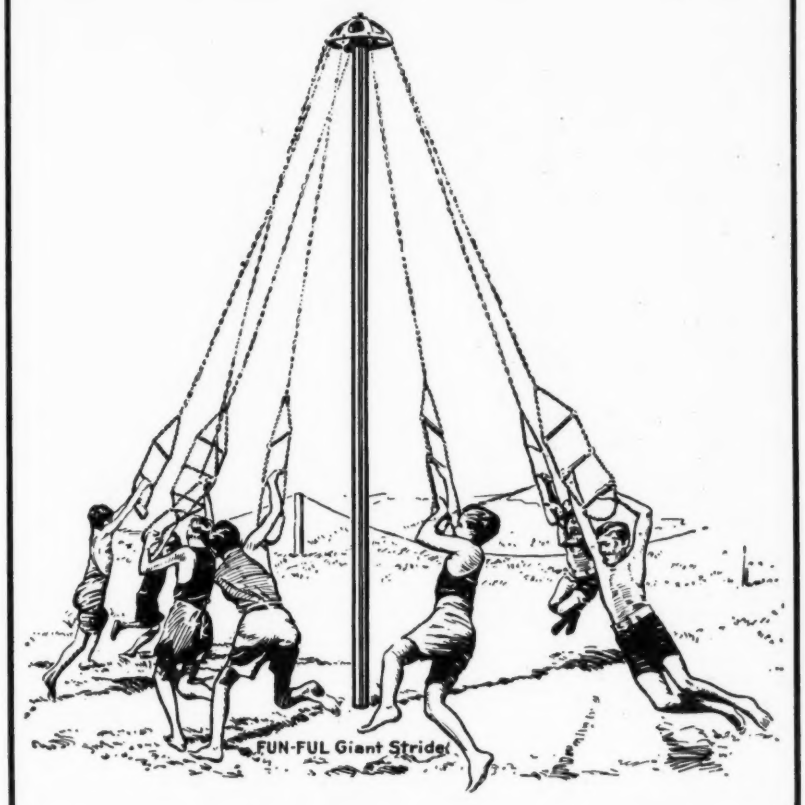
As illustrated at the left, the auditorium receives the benefit of the gymnasium to use as a very large stage, thereby making the gymnasium more valuable because of greatly increased seating facilities, while each may be used separately if desired. This folding partition in the Bexley High School, Columbus, O., is 19 feet high by 60 feet wide.

Send for Catalog

IRVING HAMLIN

Manufacturers of Sound-Proof Doors and Folding Partitions

1510 LINCOLN ST. — EVANSTON, ILL.



THE FUN FUL LINE
PLAYGROUND EQUIPMENT

FUN-FUL Playground Equipment is the result of experience, a quarter of a century devoted to the development and manufacture of children's outdoor health building goods by this company.

The best you can buy, this we guarantee.

We offer the most comprehensive line to select from, nothing but approved and guaranteed apparatus.

Also manufacturers of

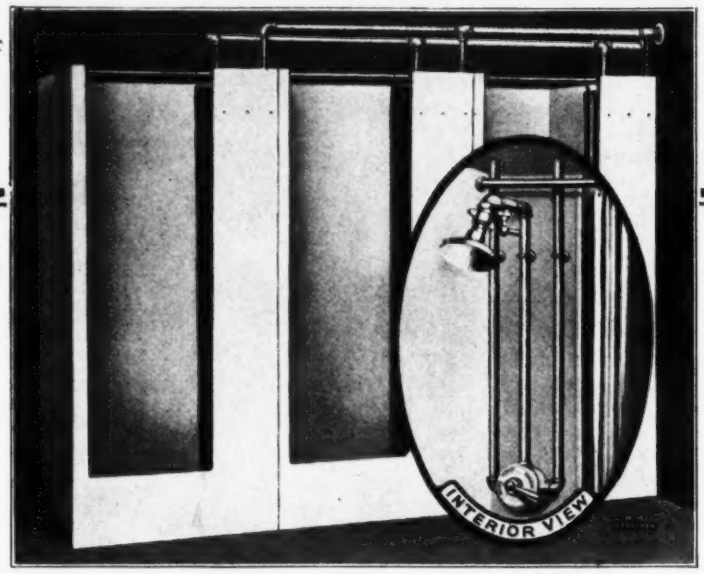
SWIMMING POOL
SPORTS APPARATUS

Water Slides	Aqua Planes
Marine Monsters	Pool Ladders
Balsa Wood Surf Boards	Diving Towers
Life Buoys	Water Ponies
Safety Pool Matting	Life Line Buoys
Landing Stairs	Depth Markers
Spring Boards	Life Lines, etc.

Largest manufacturers of playground and swimming pool equipment

Awarded Gold Medal Brazilian Centennial 1922-1923

HILL-STANDARD CO.
EST. 1900
Anderson, Indiana, U.S.A.



THE
NIEDECKEN STALL SHOWER
Patented
FOR SCHOOL INSTALLATION
Can Be Set in Batteries of Any Number
A LEAK PROOF FIXTURE
Complete With Niedecken Shower

The walls of the stall are made of a continuous sheet of No. 10 gauge copper bearing steel which with the riser are welded to the bottom. After installation, the exposed surfaces must be finished with water proof enamel paint.

Write for Bulletin S.B. 15X

HOFFMANN & BILLINGS MFG. CO.
MANUFACTURERS SINCE 1855.
MILWAUKEE, U. S. A.

FRESH WATER
DIRECT FROM WELL, LAKE, CISTERN AND STREAM

YOUR school water supply need not be a problem. If there are adequate sources of water supply situated adjacent to the school property (it doesn't matter whether they are 100 feet or 1000 feet distant), a National Fresh Water System will provide ample water, under constant pressure, for all school requirements.

One system, employing but one power unit, will deliver:

(a) **An abundance of fresh, cool, sparkling drinking water, pumped direct from well or spring at the turn of any faucet —or to convenient bubblers.**
(b) **Ample water supply for lavatories and toilets, pumped from lake, stream, cistern or well.**
(c) **Water for irrigating lawn and flower beds, for settling dust in roadway etc.**

All this is made possible by applying **compressed air** to the problem of pumping and conveying water, under pressure, direct from one or more sources to any number of outlets.

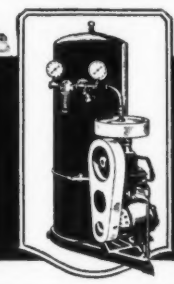
The power unit may be placed wherever most convenient — usually in the school basement. There is no water tank to rust, freeze, or befoul the water supply. Water is pumped, as needed, at rates of 600 to 1200 gallons per hour, per pump, against any lift up to 150 feet (you can operate as many pumps as desired, with one power unit of adequate capacity).

If electric current is not available, power unit may be operated by a small gasoline engine.

Our engineering and planning department will gladly confer with you in regard to a Water System installation adapted to your specific requirements. Catalog on request.

NATIONAL UTILITIES CORPORATION,
329 Belleview Place,
Milwaukee, Wis.

Subsidiary of National Brake & Electric Co., Division of Westinghouse Air Brake Co.



National FRESH WATER SYSTEM

ECONOMIC FACTORS RELATED TO SCHOOL-POPULATION GROWTH

(Concluded from Page 53)

existing in 1915, an interesting trend curve is revealed. There are many significant variations from year to year among these activities. Telephone service has not been included (Diagram 3) since data prior to 1916 were not available.

Plotting the percentage increase (Diagram 4) for each of these activities over the total of the previous year shows a much more confused situation. How nonrelated these many elements are as the totals change from year to year is evident from a glance at this diagram.

Telephone service and school enrollment seem to be more closely related in trend. Yet, even in these two cases, the changes from year to year do not appear to be such as to warrant the use of one to forecast changes in the other at least insofar as these data show. In diagram 5 there appears to be no consistency in the direction taken by either curve from year to year. This diagram was made separately, since the telephone data were not available for dates prior to 1917. Evidently one cannot be used to forecast the other.

Conclusion

A review of the data presented above seems to show that for the city of Minneapolis, there is little evidence which would warrant using changes in these service activities for forecasting school population. There appears to be no direct relationships which would lead one to conclude that a change in any one of them consistently suggests a corresponding future change in school population. Unless one is able to relate changes in these elements as anticipating changes in school population they have little value. This is obvious, since school-population facts are available yearly, monthly, weekly, and daily if desired. If school-population data cannot be accurately recorded, and if the resulting statistics are not reliable, then to resort to the other source data appears to be hopeless.

Before the change in economic factors within a city can be related to school growth, it must be demonstrated in the first instance that a reliable relationship does exist. To carry out an elaborate forecast on a theoretical assumption that a relationship does exist is subject to gross errors. The facts presented with their apparent mathematical accuracy may mislead the general public. The more one studies the problem of forecasting, the more one is convinced that unless school authorities are able to predict school-population change from the data of school records, there is little hope of success. Other sources are of little avail except as a means for checking the findings derived for the school statistics.

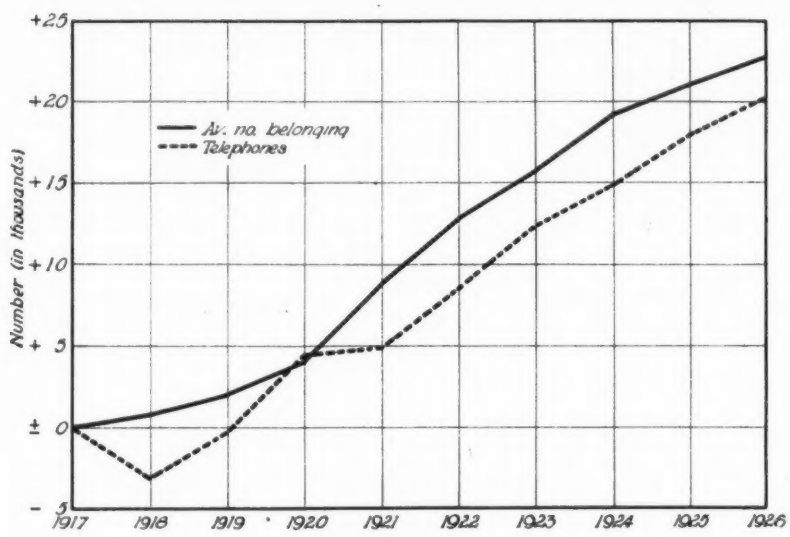


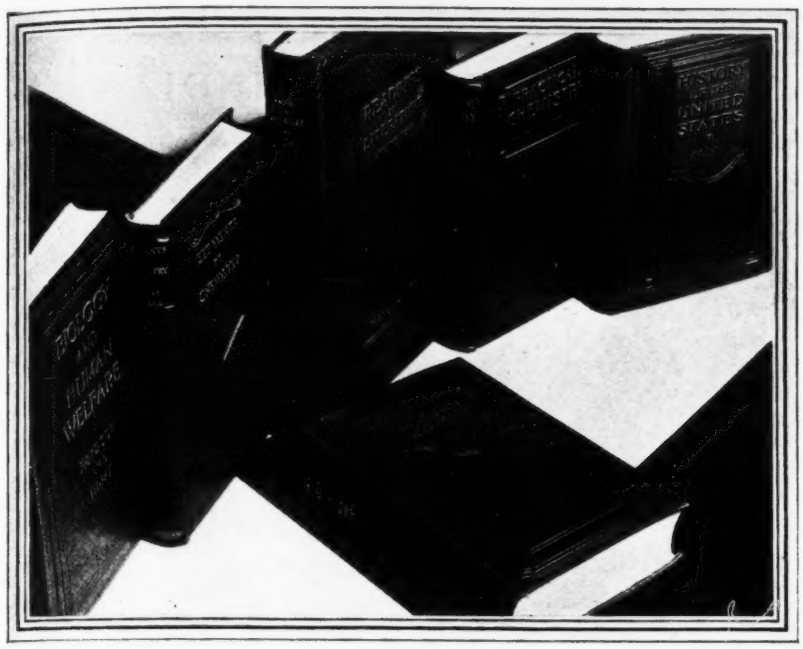
DIAGRAM 5.

SCHOOL BOARD NEWS

—Supt. True C. Morrill of Newport, N. H., in his annual report to the school board, says that no town or city in New England has been more fortunate than Newport in the way of gifts. The school system has been the recipient of a projectoscope, victrolas for all the schools, a piano, and a high-school clock system, aggregating in value the sum of $5,190.

—The high-school library at Gainesville, Texas, has been bequeathed the sum of $500 through the will of the late Mrs. G. G. Houston, recently deceased.

—The school board of Boston, Mass., has by a vote of four to one memorialized the national congress against the Curtis-Reed bill, which seeks to establish a Federal department of education with a secretary in the Cabinet. A transcript of the discussion on the measure by the board members is to be submitted to the lawmakers at Washington.



Photograph through courtesy of the Macmillan Co., Publishers.

Conquering the Two Greatest Enemies of Textbook Covers

THESE two great enemies are *use* and *abuse*. One is normal wear; the other is the thoughtless care given books by children.

Fabrikoid was created and developed to defeat these two enemies *and it does*. It stands the hardest use and abuse that careless handling can give. Treatment that would ruin any ordinary cover material leaves Fabrikoid unharmed. Pencil smudges, dirt, ink stains, finger marks—all these are removed instantly with soap and water. Fabrikoid is both waterproof and washable.

Fabrikoid likewise lends to textbooks a high-class appearance that remains for season after season. It is the final word in cover material for modern textbooks.

We cordially invite Principals, Teachers, and Board of Education members to correspond with our Textbook Binding Department, which will give prompt attention to every inquiry.

E. I. DU PONT DE NEMOURS & CO., INC.
Fabrikoid Division
NEWBURGH, N. Y.

DU PONT FABRIKOID
REG. U.S. PAT. OFF.

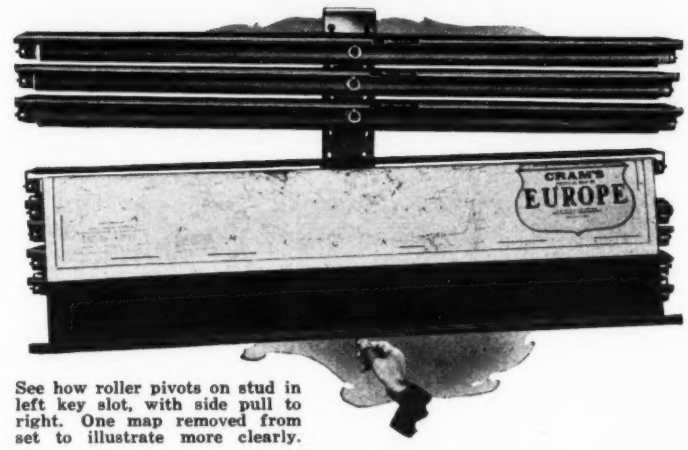
FABRIKOID

Newest and Best!
Revolutionary!
Intensely Practical and Economical!

Maps Easily Removable!
Quickly Transferable to Other Holders!

CRAM'S STRAIGHT-ROLL MAP-HOLDER

(Patents Pending)



See how roller pivots on stud in left key slot, with side pull to right. One map removed from set to illustrate more clearly.

A new, simple, effective, fool-proof map fixture which absolutely solves the old problem of maps with worn, frayed edges from crooked rolling. Cram's Straight-Roll Map-Holder—which is all that the name implies—is radically different from any other map-holding device on the market. Instead of being held rigidly at the ends, the map rollers are pivoted in the center so that they immediately adjust themselves to the direction of the pull on the map, instead of forcing the map to adjust itself to the roller. Side tension is equalized and the maps roll straight. Wear and tear on maps is reduced to a minimum, increasing their life and usefulness.

MAPS EASILY REMOVED

The Straight-Roll Map-Holder offers a distinct advantage in the ease with which any map can be removed from the set holder and hung in a single holder in another room. Thus one set of maps can readily serve several classrooms.

Write for special folder giving full information and prices on map-set holders, single holders and map equipment for them.

CRAM'S SCHOOL MAPS

An All-American Line

All Cram school maps are made complete in the Cram plant. They are absolutely up-to-date, special correspondents everywhere keeping us immediately advised of any changes. Maps are printed from new wax engravings, giving exceptionally clear print, fine detail, and beauty of color. Clear type, easy to read in classroom. Priced to meet limited appropriations.

Eight Series
SUPERIOR SERIES
MODERN SERIES
AMERICAN SERIES
INTERMEDIATE SERIES
EXCELLO SERIES
IDEAL SERIES
SUPERIOR COLORED OUTLINE SERIES
EXCELLO COLORED OUTLINE SERIES

Write for School Map Catalog No. 60 and for special information concerning State Maps, Desk Outline Maps, Atlases and Globes.

THE GEORGE F. CRAM COMPANY
Map Makers for Sixty Years
ESTABLISHED 1867
31 E. Georgia St. Indianapolis, Ind.

Just Published

THE STRAYER-UPTON ARITHMETICS

This new three-book series incorporates the most valuable findings of modern research in the teaching of arithmetic.

Simplicity of language. Vocabulary within range of pupil.

Each new difficulty very gradually approached.

All difficulties presented in a carefully graded sequence.

In full accordance with fundamental principles taught by best educational psychologists.

Authors: GEORGE DRAYTON STRAYER, Ph.D., Professor of Education, Teachers College, Columbia University, and CLIFFORD BREWSTER UPTON, A.M., Professor of Mathematics, Teachers College, Columbia University.

AMERICAN BOOK COMPANY

New York Cincinnati Chicago Boston Atlanta

JUST ADOPTED BY INDIANA

For exclusive use in all high schools.

Government *in the* United States

By Henry L. Smith, Sheldon E. Davis, and C. H. McClure

The Central Thought.

GOVERNMENT IS EFFECTIVE AND SUCCESSFUL ONLY WHEN IT IS SUPPLEMENTED BY AN INNER URGE TO CONFORM TO APPROVED STANDARDS OF CONDUCT.

A study of this book will tend to establish proper attitudes, correct judgments, and desirable behavior in all civic affairs.

Write for Descriptive Folder

LAIDLAW BROTHERS

Educational Publishers

2001 Calumet Ave., Chicago — 36 West 24th Street, New York

UNIVERSAL SCHOOL WALL MAPS

An up-to-date, inexpensive series of high grade political wall maps for general use in the classroom. Durably and carefully made.

Nine map titles—North America, South America, Europe, Asia, Africa, United States, Eastern Hemisphere, Western Hemisphere, World and Hemispheres.

Obtainable in various types of mountings (in groups or singly), to meet the needs of the user.

Write for prices and descriptive literature on *Universal Maps*, other good school map series, and globes.

RAND McNALLY & COMPANY

Publishers of the Goode Maps and Globes

(Dept. E-94)

NEW YORK 270 Madison Ave. — **CHICAGO** 536 So. Clark St. — **SAN FRANCISCO** 559 Mission St.

Library Supplies

All necessary tools, supplies, and equipment for your school library are carried in stock ready to be shipped immediately on receipt of order.

Our catalogs and manuals of instruction on organizing libraries and repairing books will be sent free on request.

GAYLORD BROS., INC.

SYRACUSE, N. Y. STOCKTON, CALIF.



The Wisconsin School-Board Convention

Under the auspices of the state department of education, the state of Wisconsin conducts a series of county school-board conventions. There is, however, a fairly strong state organization, known as the Wisconsin Association of School Boards, which conducts annual meetings. This year the convention met at Milwaukee, with 100 members in attendance.

The meetings were conducted by the president, Miss Gertrude Sherman, of Milwaukee. The first session was opened by Mr. Walter Alexander, president of the Milwaukee school board, who delivered the address of welcome in which he briefly discussed school administrative problems. He held that no branch of local government is more important than that which controls the schools. Following the musical program, Mrs. O. B. Strouse, the secretary, read several communications.

Old and New School Board

The first formal address entitled, "The Old and New-Type School Board," was delivered by Mr. Lewis Powell, a member of the Kenosha school board. He traced the origin of school administration and described the old-time school board which was large in size and cumbersome in deliberation. These large boards were divided into numerous committees which resulted in confusion rather than expeditious service.

The evolution which followed resulted in later years, in smaller school boards, and the elimination of standing committees. Mr. Powell contended that school boards should delegate detail labors to executives and confine themselves to general school-board policies. "The appointment of teachers, the formulation of a course of study, the selection of textbooks and supplies, as well as the immediate control, should be left to the superintendent," said Mr. Powell. "The most important task, therefore, confronting the school board is the selection of a superintendent. He should be clothed with adequate authority and then held strictly accountable for results."

Mr. E. H. Miles, of Fort Atkinson, discussed the subject of "Tuition Charges for Elementary Schools," in which he contended that the whole question reduces itself to one of cost. It is not clear, he said, what tuition fee can be exacted which will be fair to the nonresident pupil, and at the same time just, as far as the local taxpayer is concerned. The latter pays the bill and no school has a right to give away that which the citizens pay for.

An Equitable Tuition Fee

School costs should be ascertained with exactitude. There is the salary paid to the teacher, the expense of supervision, the investment in the school plant, and the general overhead expense. There are school boards in Wisconsin, many of them, who charge a tuition rate of 46 cents a week for something that costs them exactly $2.60. In arriving at school costs for the purpose of fixing an equitable tuition fee, Mr. Miles contended the rate should vary with the several grades. He stressed the point that school administrators should study the subject carefully, with a view of arriving at equitable tuition rates.

"There is one phase of the tuition question which is frequently overlooked," said Mr. Miles. "It deals with the subject of taxation. The property owner residing in a district where a high school is maintained pays a much higher tax rate than does the property owner in an adjoining district where no such institution is maintained. By sending its pupils to a neighboring high school, and paying the tuition fee, the nonhigh-school district has the advantage. The tuition fee should, therefore, be based upon actual costs. The farmer who sends his children to the city high school expects to pay for what he gets. He sells his potatoes at the market price and is expected to pay school tuition in accordance with its value."

State Aid for High Schools

Mr. John Callahan, state superintendent of public instruction, spoke on "High-School Aids," enumerating the several laws enacted from time to time in Wisconsin in aid of the high schools. There are at present 327 high schools in the state which receive some form of state aid. This aid varies from a few hundred to about nine hundred dollars a year for each school. It encourages the smaller school but is practically meaningless as far as the larger schools are concerned.

In discussing the taxability of school districts, Mr. Callahan pointed out that there are districts which have only $5,000 per pupil property values,



BANQUET OF THE EIGHTH ANNUAL MEETING OF THE WISCONSIN ASSOCIATION OF SCHOOL BOARDS, HOTEL SCHROEDER, MILWAUKEE, WIS., APRIL 13-14, 1928.

Do you wish

a dictionary that defines every word so that its use and meaning can be understood instantly

THE WINSTON SIMPLIFIED DICTIONARY

THREE EDITIONS

The PRIMARY is for use in the lower grades, the INTERMEDIATE for all elementary grades, and the new ADVANCED for high schools, colleges, and the teacher's desk. Each edition is designed especially for school use.

Send for illustrated literature and opinions of prominent educators regarding this modern dictionary.

THE JOHN C. WINSTON COMPANY
Winston Building, Philadelphia
Chicago Dallas San Francisco Atlanta

Three Scientifically Constructed Texts
For Advanced Stenographic Training

RATIONAL DICTATION

By Dr. Edward J. McNamara and Mark I. Markett
480 pages; cloth; $1.40

Written by two of the best-known shorthand teachers in America. 505 business letters and 56 articles, rich in business procedure and cultural content. Arranged according to a gradual progression in syllabic intensity. Not a substitution for, but a companion to, Gregg Speed Studies.

RATIONAL TYPEWRITING PROJECTS

By Rupert P. SoRelle
208 pages; cloth; $1.20

Few stenographers can look back to a year's training "on the job" that added to their experience as much as is learned by completing the 180 Rational Typewriting projects on business letter writing, manuscripts, tabulations, invoices, and legal papers.

SECRETARIAL STUDIES

By Rupert P. SoRelle and John Robert Gregg
416 pages; cloth; $1.40

Many stenographers are secretaries and many secretaries are stenographers. Every stenographer, to be well trained, should be taught the duties and the responsibilities of the secretary. You will find in the 1928 edition of Secretarial Studies a complete and teachable reproduction of the busy life of the present-day secretary.

Order samples from our nearest office.

THE GREGG PUBLISHING COMPANY
NEW YORK CHICAGO BOSTON SAN FRANCISCO TORONTO LONDON

Budget Trans-Lux

Make Necessary Arrangements Now for Funding the Purchase of the

TRANS-LUX AIR-COOLED OPAQUE PROJECTOR AND DAYLIGHT PICTURE SCREEN

This equipment has earned for itself a very important position in the teaching of art appreciation, for giving atmosphere in teaching languages and geography. Your material is always up-to-date.

Owing to the fact that the Projector is efficiently cooled, teachers can be confident in operating it and know that the material can be projected without any danger of it being harmed by heat.

The Stereopticon Attachment makes it possible for schools also to utilize their own supply of lantern slides.

Do not hesitate to correspond with us, should you desire further particulars.

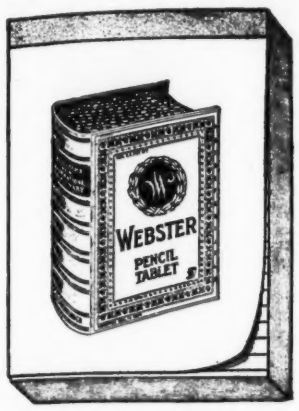
TRANS-LUX DAYLIGHT PICTURE SCREEN CORPORATION
247 Park Avenue New York, N. Y.

Speaking of Repeat Orders for Stage Curtains and Scenery—

Schools furnished in New Britain, Conn.
(*in the territory covered by Mr. B. H. Eames*)

1922 Senior High School
1923 Nathan Hale School
1924 Elihu Burritt School
1925 Osgood School
1926 Roosevelt School
1927 Steel Street School

LEE LASH STUDIOS
H. J. KUCKUCK, GEN'L MGR.
1818-1838 Amsterdam Ave.
NEW YORK, N. Y.
TELEPHONE BRAD. 4907.



BLAIR'S WEBSTER SCHOOL SERIES

COMPOSITION AND NOTEBOOKS—END AND SIDE FOLD. SPELLING BOOKS AND BLANKS — SPECIAL FORMS. EXAMINATION, TEST AND THEME TABLETS — PRINTED HEADS. SHORTHAND NOTEBOOKS — WIDE AND CENTER-LINE RULINGS. STANDARDIZED WHITE WOVE WRITINGS. BLAIR-SPECIAL QUALITY PENCIL PAPER. COPYRIGHTED TRADEMARKED DESIGN. DESIRABLE UNIFORMITY. PRICE AND COUNT. SATISFACTORILY KNOWN TO THE SCHOOL TRADE. POPULAR COMPREHENSIVE LINE EVERY YEAR ALIKE—SINCE '98.



PENCIL TABLETS

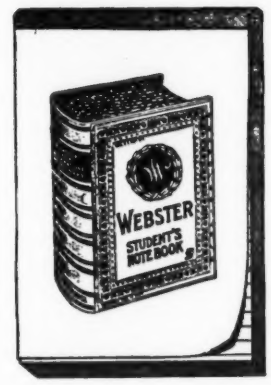
MUSIC TABLETS



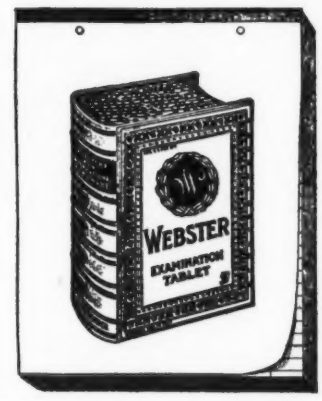
REFILLS FOR LOOSE-LEAF BOOKS. DRAWING BOOKS AND TABLETS. LEGIBLE RULINGS IN BLUE. SUBSTANTIALLY BOUND. SQUARELY AND EVENLY TRIMMED.

MARGIN LINES

QUALITY GUARANTY



PENMANSHIP—DOUBLE AND SINGLE LINE RULED.
PRIMARY AND PRACTICE—SPECIAL RULINGS.
MEMORANDUM BOOKS—THREAD SEWED.



SAMPLES AND INFORMATION DETAILS AT YOUR CALL.

J. C. BLAIR COMPANY

MANUFACTURING STATIONERS HUNTINGDON, PENNSYLVANIA

while other districts have $100,000 and over per pupil valuation. The real problem is to devise a plan of state aid that will prove both equitable and serviceable.

School Finance and Teacher Tenure

The luncheon hour was devoted to a round-table discussion. Mr. Loyal Durand, of the Milwaukee school board, presided. He suggested several topics for discussion, including school finance, teacher tenure, and school reports. Milwaukee, Mr. Durand stated, had taken definite steps toward a partial, pay-as-you-go plan. A special mill tax was recently approved by the voters, whereby the local school fund will be enlarged by a million dollars a year for the ensuing five years. This will enable the erection of new school buildings without the aid of bond issues.

Dr. Calvey, of Fond du Lac, demonstrated the value of building programs, and discussed the relative merits of bond issues and the pay-as-you-go plan in financing building programs. Mayor Watson, of Fond du Lac, held that in considering the welfare of the teacher in point of compensation, the interests of the poor taxpayer, and particularly the man out of employment, should not be overlooked.

Supt. S. B. Tobey, of Wausau, spoke on "Teachers' Salaries" and argued the employment of competent teachers at good salaries is a step in the direction of economy. The real economy comes in the form of higher standards.

Mrs. Meehan, of the Milwaukee board of education, held that school cost cannot be regulated downward at this time. The present aim must be to get dollar for dollar in service. Milwaukee has secured an additional mill tax which will increase the building fund by one million dollars annually. Higher standards must be the objective.

Mr. Loyal Durand pointed to the value of illustrated school reports. The old-time report was not in demand. The picture kind is in great demand.

Mr. A. W. Taege decried the uniform salary schedule, believing that salaries should be fixed on individual merit. When Mr. Durand denounced permanent tenure for teachers, State Supt. Callahan suggested that an incompetent teacher can be gotten rid of under any tenure law. It simply requires backbone.

Mr. E. G. Doudna argued that the securing of better teachers implies (1) more scientific educational methods, (2) a closer study of psychology, (3) a reorganization of the curriculum and (4) administrative changes. Modern teacher training not only implies education, but an understanding of human adjustments, and a broader service to mankind. Therefore, a sound culture must be exacted.

Teacher Sick Leave

Mr. O. H. Plenzke, assistant state superintendent, presented the results of a study on "Absence and Sick Leave of Teachers" in which he pointed out that no uniformity had been reached. Out of 230 cities in the United States, 160 grant leave of absence on full pay, 66 grant 10 days, and 58 grant 5 days. Some 40 cities have no provision for sick leave but make some sort of adjustment. The average sick leave of teachers in the United States is 3½ days.

Mr. W. C. Knoelk, assistant superintendent of Milwaukee, held that sick-leave compensation must deal with the cause of illness and the question of cost. The number of days granted with full pay must be limited. Milwaukee grants 10 days on half pay. Twenty per cent of the teachers constitute 70 per cent of absenteeism. The statements of physicians should guide, and teachers should not expect consideration not extended to other professional workers. Teachers should exert sufficient thrift to weather short periods of illness.

Drs. Tigert and Hartwell Speak

Dr. John J. Tigert, United States commissioner of education, talked on the services rendered by the education bureau over which he presides. He stated it was the first time in his seven years of incumbency of the office that he had discussed the work of the bureau. Owing to the fact that the schools are in charge of the states, there is a tendency to belittle the work of the Federal government in popular education, and he successfully demonstrated that the bureau is doing a great work in gathering and disseminating information, and in conducting school surveys.

Supt. E. C. Hartwell, of Buffalo, N. Y., spoke on the topic, "What is It All About?"

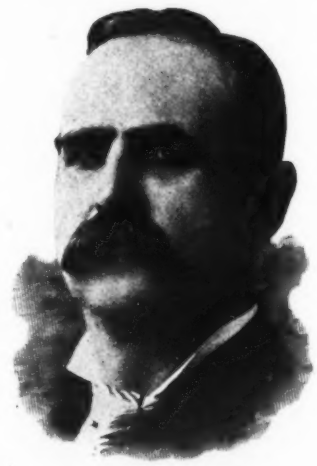
The convention reelected Miss Gertrude Sherman of Milwaukee, as president, and Mrs. O. B. Strouse, of Arcadia, as secretary-treasurer.

OSCAR CORSON DIES

Prof. Oscar T. Corson, of Oxford, Ohio, a well-known educator in the Buckeye state, died suddenly at Columbus, on April 14, while addressing the Ohio Educational Conference in the Ohio University Chapel.

Professor Corson was born near Camden, Ohio, in May, 1856. After attending the public schools in Camden, he went to Ohio Wesleyan University, which honored him with the degree of A.M. in 1888.

He began his educational career in the rural schools of Ohio, in which he served from 1875 to 1878. Then he became principal of the Fair Haven School, and from this rose to superintendent of schools in his native town. Later he took a similar position at Granville and at Cambridge.



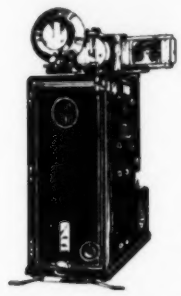
OSCAR T. CORSON.

In 1892, Professor Corson was appointed state commissioner of schools, remaining in this position until 1898. During this time he became editor of the *Ohio Educational Monthly*, the oldest educational journal in the country. He remained as editor until 1918.

In 1898 he was elected president of the Ohio teachers' association and two years later became president of the National Education Association. He was also a trustee of Ohio Wesleyan University from 1899 to 1913.

In 1898 he was elected president of the Ohio teachers' association and two years later became president of the National Education Association. He was also a trustee of Ohio Wesleyan University from 1899 to 1913.

Professor Corson frequently lectured before educational gatherings and was a regular contributor to the educational periodicals of the day. He was a man of strong personality and vigorous expression, and stood for liberal support and intelligent methods in educational work.



Movies *in your* School

MOTION PICTURES for school use are comparatively new. Do you know the experience of other schools? Which is the best projector for school use? How much it costs? Where to obtain educational films?

FREE pamphlet answers these and many other important questions. Gives successful programs used by other schools—tells how money may be raised for worthy causes. We will also send a complete description of the new Acme Motion Picture Projector and, if you wish, arrange for a free demonstration in your own school.

International Projector Corporation,
Acme Division
90 Gold St. New York City

Mail this coupon today for free aid & advice

Gentlemen:
Please send me FREE pamphlet G-5 on Motion Pictures in the School, and complete information about the new Acme Motion Picture Projector.

Name .....
Address .....
City ..... State .....

OUR NEW STUDIO

with its modern Equipment and
MORE CENTRAL LOCATION

Gives us a greater opportunity to serve you Efficiently

Inquiries Solicited.

UNIVERSAL SCENIC STUDIO, INC.

W. B. Clinard,
Winston-Salem,
NORTH CAROLINA

H. S. Revelli,
676 Randolph Bldg.,
MEMPHIS, TENNESSEE

Home Office and Studio
378-380 FIFTH ST.
MILWAUKEE

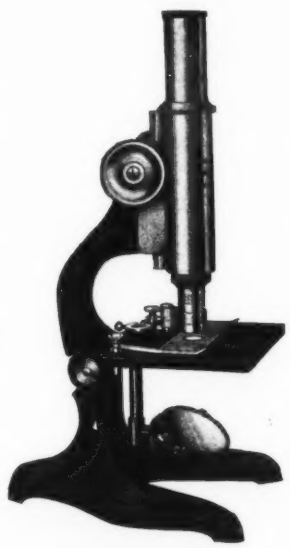
NOVELTY SCENIC STUDIOS
BUILT ON MERIT

DRAPERIES STAGE SETTINGS
SCENERY RIGGING
ASBESTOS CURTAINS

for schools, little theatres, clubs, halls, auditoriums

Booklet "S1927" describing the **NOVLFLEX** *setting will be mailed on request.*

NOVELTY SCENIC STUDIOS
340 WEST 41ST STREET, NEW YORK CITY



LEITZ
MICROSCOPE MODEL "O"

Popular with Elementary Schools due to its low price, sturdy construction and adequate equipment.

Model "O" is very rigidly constructed, dispensing with the mechanism of a micrometer fine adjustment screw; the rack and pinion focusing adjustment is accurately fitted. It consists of a stand provided with horse-shoe base, handle arm, and inclination joint; a sufficiently large stage is equipped with one pair of clips and a rotating disc-diaphragm with circular openings for varying the intensity of illuminating rays. Plano and concave mirrors in mounting with universal movement serve for illumination.

Microscope "O" with double divisible objective Ocular 12X, rendering magnifications of 72x-144X, in hardwood cabinet with lock and key.....**$36.75**
If desired without case, deduct..... **3.50**

(Slightly higher prices prevail dependent upon the increased optical equipment as may be selected)

Institutional Discount: 10%.

The Microscope "O" and other microscopes, more elaborately equipped, are listed in Catalog "P" (DD). If you have not received your copy of this literature, kindly write for same.

E. LEITZ, Inc.
60 East 10th Street
New York, N. Y.

AGENTS:
Pacific Coast States: SPINDLER & SAUPPE, Offices at San Francisco and Los Angeles, Calif.
Canada: THE J. F. HARTZ CO., LTD., Toronto 2, Canada.
Philippine Islands: BOTICA DE SANTA CRUZ, Manila, P. I.
Cuba: ANTIGA & CO., Havana, Cuba.

School Books Rebound

In the field of rebinding school books we have to offer the highest grade of workmanship, dependability, and service. We also bind magazines.

Branch binderies at Atlanta, Cleveland, Indianapolis, and Philadelphia enable us to serve the territory east of the Mississippi most effectively.

The National Library Bindery Company

271 Park St. **West Springfield, Mass.**

FREE OFFER

to school executives or board members to demonstrate our Nelbco bindings.

Fill out coupon, clip and mail

THE NATIONAL LIBRARY BINDERY CO.,
271 Park St.,
West Springfield, Mass.

Gentlemen:

We are sending three worn school books for you to rebind **without charge** as a demonstration of your Nelbco bindings.

Signed.....

.....
(Office held in school system)

Address.....

.....

Seven Important Reasons for Selecting The Neatfit Adjustable Book Cover For All Your Textbooks

ONE: It is made of a single piece of the highest grade stock which is as tough as cloth and will outwear three ordinary covers.

TWO: It is cut and folded true and exact.

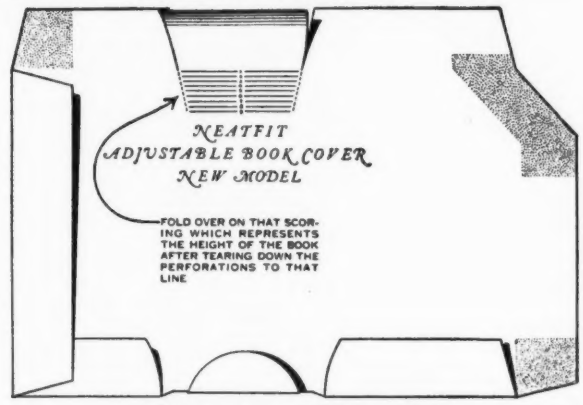
THREE: The design for adjusting the covers saves much time, enabling the pupils to do neat work in fitting the cover easily and quickly.

FOUR: It has broad gluing surfaces of sanitary glue which do not come loose.

FIVE: It is absolutely waterproof.

SIX: It fits snugly and presents an unbroken surface.

SEVEN: Considering the remarkable strength and adequate wearing qualities it has no equal in flexibility.



THE BEST BOOK COVER EVER MADE FOR SCHOOL USE

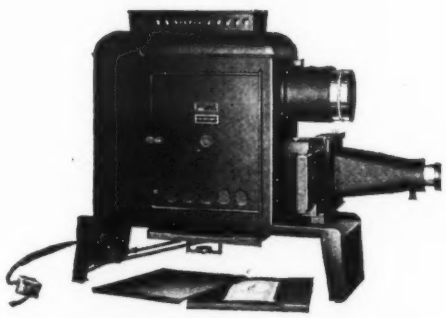
Millions of the Neatfit Adjustable Book Covers Are Sold Each Year

THE NEATFIT ADJUSTABLE BOOK COVER WILL INCREASE THE LIFE OF ANY TEXTBOOK 50%

IROQUOIS PUBLISHING COMPANY, Inc.

Home Office, Syracuse, New York

NEW YORK ATLANTA DALLAS CHICAGO



Practical, Economical Visual Instruction

Specimens are easily obtained for the Bausch and Lomb LRM COMBINED BALOPTICON. The pages of a book, photographs the specimen itself — almost anything that will illustrate the point — can be used.

Even in a lighted room objects, slides — and with a B & L Film Projector Attachment — film can be projected with surprising clearness.

Send for our booklet "The LRM Balopticon."
It is yours for the asking.

Bausch & Lomb Optical Co.

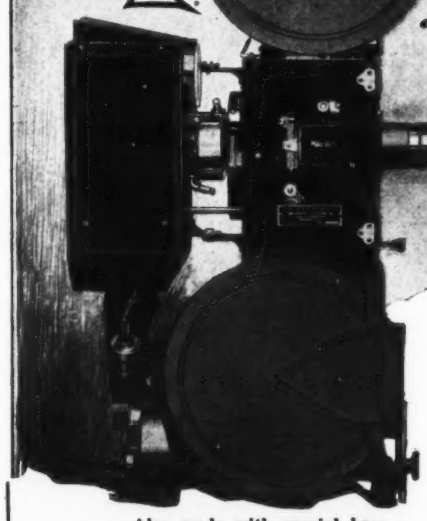
680 St. Paul St., **Rochester, N. Y.**

HOLMES MOTION PICTURE PROJECTOR

NO PIG TAIL TWIST
THREADS STRAIGHT
THROUGH

For the ASSEMBLY HALL *and* CLASS ROOMS

SHAFT DRIVE { NO BELTS OR CHAINS



Also made with special base

LOW IN PRICE

yet projects a 10 ft. x 14 ft. picture up to 100 ft., equal in quality and definition to pictures in moving picture houses.

15 Days Free Trial

Compare it with any other make; if not perfectly satisfactory, return it and your money will be cheerfully refunded. Many exclusive mechanical features, in point of ease of operation, long life, safety, adjustable take up, focus adjustment, simplicity throughout. IT HAS NO EQUAL.

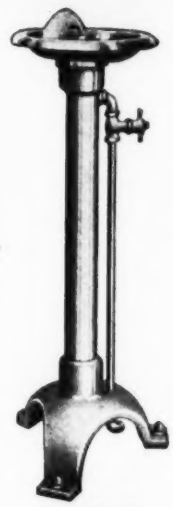
That's why the United States Navy is using 25 machines. 51 being used by Hollywood's most famous celebrities, directors and producers.

Professional quality with portability. Weight 44 pounds. Can be operated from any light system, farm lighting included.

Write for interesting details.

HOLMES PROJECTOR COMPANY

1640 No. Halsted St. **CHICAGO**



"Sandow" Self-closing Fountain



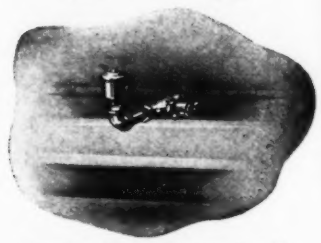
"Mur-Made" all brass Wall Fountain



"Sampson" stop cock



"Simp-San" Bubbler Head



Showing how "Sampson" self-closing cock and "Simp-San" Bubbler Head may be used in combination.



Murdock Outdoor Bubble Font—Anti-freezing.

MURDOCK

Drinking Fountains and fixtures.

Built for hard service. Made principally of Bronze and Brass—practically unbreakable—therefore especially adapted for schools. In their use there is uninterrupted service and freedom from annoyance and repairs.

The Murdock Outdoor Bubble Font has solid bronze bowl and bubbler head, chromium plated. The inner works are entirely of brass. The construction permits removal of inner works without digging up. The Font is self-draining and anti-freezing. Angle stream is regular. 513 cities and towns have installed this Font in the past six years.

Write for booklet "What To Know About Outdoor Drinking Fountains"

THE MURDOCK MFG. & SUPPLY CO.
CINCINNATI, OHIO
Since 1853.

MITCHELL



Merry Whirl

Provides Exercise and Amusement for ONE or FIFTY Children at a time

Send For Free Catalog

MITCHELL MANUFACTURING COMPANY
1801 Forest Home Ave. Milwaukee, Wis.

Bradley Washfountains

PROMOTE BOTH CLEANLINESS AND SANITATION | **REQUIRE BUT A MINIMUM OF JANITOR SERVICE**



"The First Cost is the Last Cost"

Bradley Washfountains represent a great advance in modern washroom equipment. They promote both cleanliness and sanitation, are self cleaning and require but a minimum of janitor service.

And Bradley Washfountains are most economical. Their use reduces the number of fixtures required. They save floor space, use less water, and permit the use of fresh tempered water at all times.

For use in Schools, Colleges and Universities and in every type of public lavatories, there is no fixture equal to the Bradley Washfountain in utility, durability and beauty and in economy of operation and maintenance.

Write for Catalog

Bradley Washfountain Co.
Milwaukee, Wisconsin

A FEW SCHOOL INSTALLATIONS

Crane Technical High School,
Tilden High School,
Schurz High School,
Austin High School,
Morgan Park School,
Chicago, Ill.
Garvey School,
Los Angeles, Calif.
Theodore Roosevelt Junior and Senior High School,
Amsterdam, N. Y.
Marquette University,
Continuation School,
Milwaukee, Wis.
Fortuna Grade School,
Fortuna, Calif.
Washington Ave. High School,
Canton, Ohio
High School,
Green Bay, Wis.
Fond du Lac High School,
Fond du Lac, Wis.
South Omaha High School,
South Omaha, Nebr.
Woodland Union High School,
Woodland, Calif.
Old Government School,
Oneida, Wis.
Great Neck Prep. School,
Great Neck, L. I.
High School,
St. Charles, Ill.
AND MANY MORE.

MANUFACTURERS OF

HIGH GRADE

GYMNASIUM EQUIPMENT

ALSO

PLAYGROUND APPARATUS AND ATHLETIC SUPPLIES

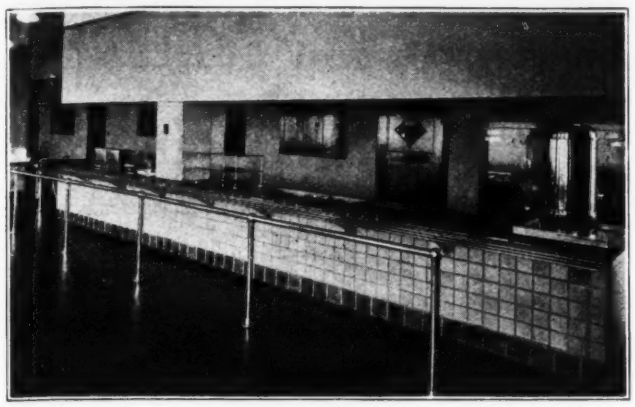


Ask about "SHOMMER" the new BASKETBALL BACKBOARD.

CHICAGO GYMNASIUM EQUIPMENT COMPANY

1835 W. LAKE ST. CHICAGO

Send for Descriptive Catalog.



Not A Bit Too Early

to begin planning on your Cafeteria Requirements for the Fall School Year.

A Cleveland Range estimate has back of it the experienced suggestions of our Engineering Department. These will be furnished entirely without obligation regardless of the size of new installations or alterations desired.

Consult with us. The prestige of the Cleveland Line is founded on the superior merits of our products and service.

The CLEVELAND RANGE Co.

General Offices and Factory
CLEVELAND, OHIO
Specialists in School Cafeteria Equipment

EVERYTHING for THE DINING ROOM AND KITCHEN

Dougherty Cafeterias

mean complete satisfaction



Equipped by DOUGHERTY

Ocean City High School, Ocean City, N. J.
Vivian B. Smith, *Architect*, Ocean City, N. J.

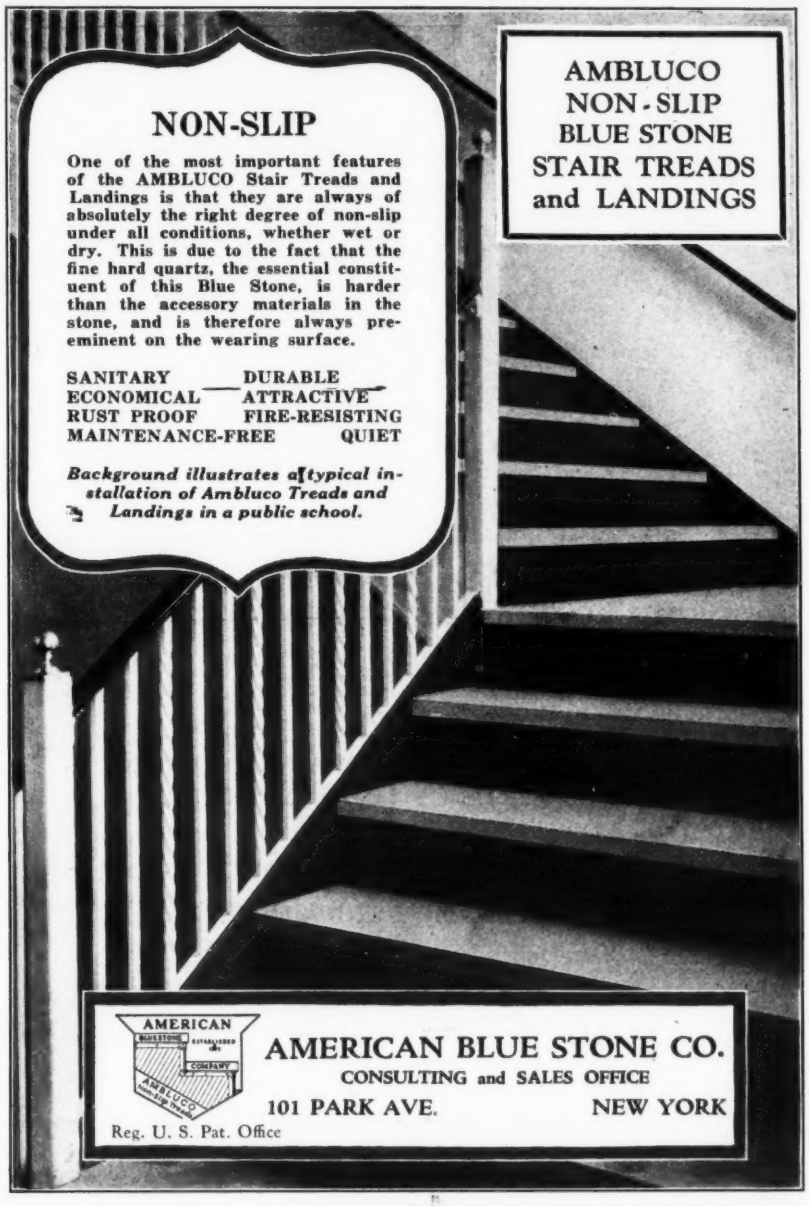
Over seventy-six years' experience has proven that DOUGHERTY Cafeteria Equipment for schools means efficiency, durability, and complete satisfaction.

When Kitchen and cafeteria equipment is needed, it is well to remember that none is more rightly selected or satisfactorily used than DOUGHERTY'S.

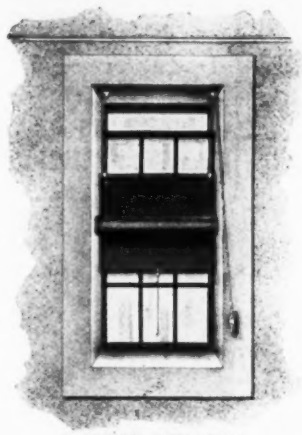
Write today for our complete catalog covering every item needed for a School Cafeteria.

W. F. DOUGHERTY & SONS

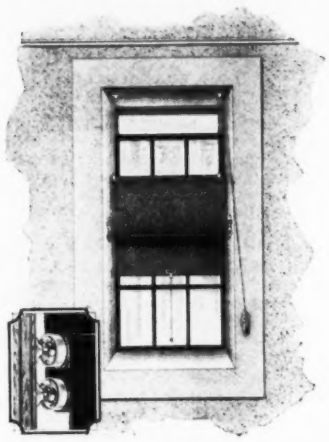
Everything For The Kitchen
1009 ARCH ST. PHILADELPHIA







PATENT PENDING



THE EDUCATOR
DOUBLE ROLL SHADE

New Features
New Construction

THE No. 2 SENIOR
DOUBLE ROLL SHADE

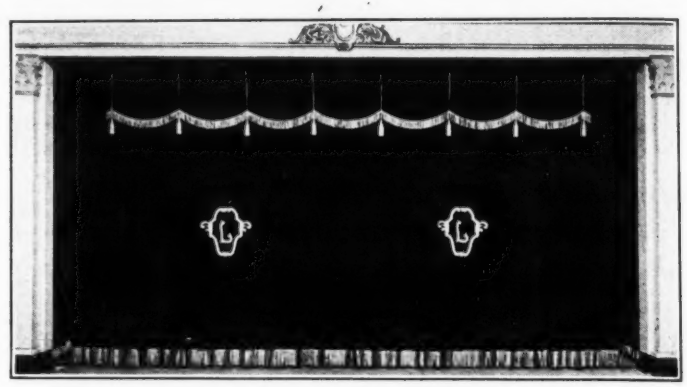
Moderately Priced
A Practical Shade

WE DESIGN AND MANUFACTURE MANY OTHER TYPES OF SCHOOL SHADES.

THERE IS A DISTRIBUTOR NEAR YOU.
WRITE FOR "MODERN SHADING."

MAXWELL'S SHADE SERVICE BUREAU
3636 IRON ST. CHICAGO

SCHOOL and COLLEGE SCENERY STAGE EQUIPMENT

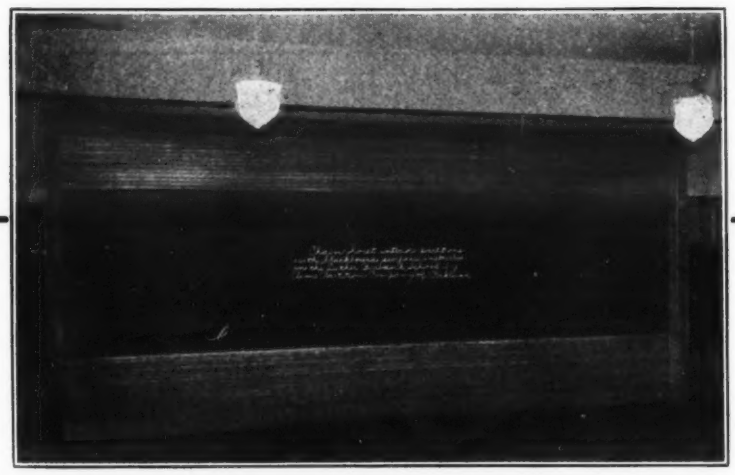


Complete Stage Equipment
For School and College Auditoriums

Velour Curtains and Cycloramas
Curtain Tracks—Curtain Control
Painted Curtains and Drops
Framed Painted Scenery

Asbestos Curtains—Picture Screens
Stage Hardware and Complete Rigging
Estimates furnished for any Stage
No obligation to Purchaser

THE WARD-STILSON COMPANY
ANDERSON INDIANA.



Luther Burbank School, Stockton, California
Opening 20'-9" x 9'-8"

EFFICIENCY

The use of Acme Rolling Wood Partitions makes for efficiency in the modern school plant. The Acme Partition illustrated above provides a moving wall for practically the entire side of the room.

The blackboard surface shown is applied directly to the smooth surface of the finished wood.

The entire partition coils overhead out of the way, throwing two class rooms into one large room for assembly purposes.

Easy operation by chain hoist or hand crank is accomplished by means of exclusive Acme ball bearing shaft construction.

Send for complete details.

ACME PARTITION COMPANY, INC.
Representatives in Principal Cities
3538 Peralta Street Oakland, California

A big business, like the Pyramids, must set on a sound foundation. The business of the U. S. Sanitary Specialties Corporation has been built on a foundation of Confidence . . . Confidence engendered by producing only materials of high standard . . . by fair dealing . . . by the ever-present motive of Service. U. S. Sanitary Specialties Corporation has spent ten years safeguarding the public health. It has pioneered in the evolution of sanitary methods . . . made history in the invention of modern Liquid Soap Dispensing Equipment. It has set new standards in the marketing of Liquid Soap with a guarantee of soap solids. It has gone a tremendous distance in banishing the menace of disease. Constant research in chemical and mechanical fields . . . the high standard by which each product is measured . . . all have made U. S. Sanitary Specialties Corporation a trusted name. When we hear a man say, "Oh, the U. S. Sanitary—I know them—they're a fine house to do business with" . . . we are amply rewarded for never having broken faith. And it is our constant aim to merit and hold this

CONFIDENCE

Especially equipped to cope with the sanitary problems of schools and institutions.

Manufacturers of

Aerzonator Air Conditioners
Soapeze Pine Cleanser
Phorex Dishwashing Compound
Disinfectants Insecticides
Soaperior Liquid Soap Dispensing Systems
Fine Toilet Soaps Polishes

Write Mr. Butler for facts and figures on problems of any sanitary nature. No obligation, of course!

U. S. SANITARY SPECIALTIES CORP.
435 SO. WESTERN AVE. CHICAGO.

Prove for yourself that

it's best to get the

RIGHT PENS

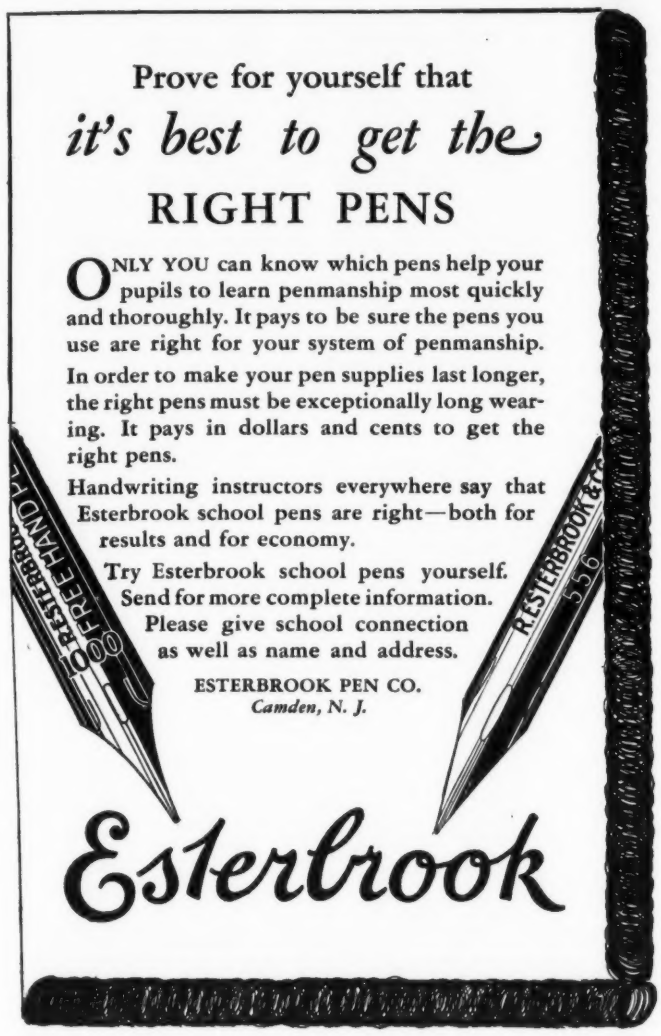
ONLY YOU can know which pens help your pupils to learn penmanship most quickly and thoroughly. It pays to be sure the pens you use are right for your system of penmanship.

In order to make your pen supplies last longer, the right pens must be exceptionally long wearing. It pays in dollars and cents to get the right pens.

Handwriting instructors everywhere say that Esterbrook school pens are right—both for results and for economy.

Try Esterbrook school pens yourself. Send for more complete information. Please give school connection as well as name and address.

ESTERBROOK PEN CO.
Camden, N. J.



"APSCO"

AUTOMATIC PENCIL SHARPENERS



A Model to Meet the Needs of Every School

The "MARVEL" is a new low priced "APSCO" model, finished in baked enamel. It has the new adjustable self-centering Guide which holds pencils or crayons up to $^{15}/_{32}$ of an inch in perfect alignment.

OTHER "APSCO" MODELS
Dandy—Dexter—Educator—Star—Junior
Wizard—Giant, *and the world famous* Chicago.

Ask your School Supply House or Stationer
Catalog sent on request

AUTOMATIC PENCIL SHARPENER CO., CHICAGO, ILL.

YOUR SCHOOL MATERIALS

HELPS *for* SCHOOL *and* INDUSTRIAL ARTS



"HYGIEIA" DUSTLESS
Preserves the Life
of Your Blackboards

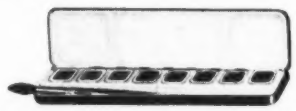




"PRANG" TEMPERA
Showcard Color
Based on the
Color Circle

"CRAYONEX"
The Better Wax
Crayon
In the Blue and
Orange Box





"O-MODEL-O"
Plastic Modeling Material

"PRANG" WATER COLORS
The First and Still the Standard

EVERYONE AN "OLD FAITHFUL" PRODUCT

Other "Old Faithful" Products Are
"Waltham" Blackboard Chalk, "Old Faithful" Colored Chalks, "Polar Bear" and "Stixmore" Paste, "Permex" and "Old Faithful" Ink Squares. Write for catalog and prices.

THE AMERICAN CRAYON COMPANY
HOME OFFICE AND FACTORIES 555-655 HAYES AVE., SANDUSKY OHIO
NEW YORK OFFICE 130 WEST FORTY-SECOND ST., SAN FRANCISCO 45 SECOND ST.,
DALLAS, TEXAS 1508 SANTA FE BUILDING

The Compass that takes THIN LEADS

The NEW No. 569

Compasses and Divider



The only school compass that takes ***thin leads.***

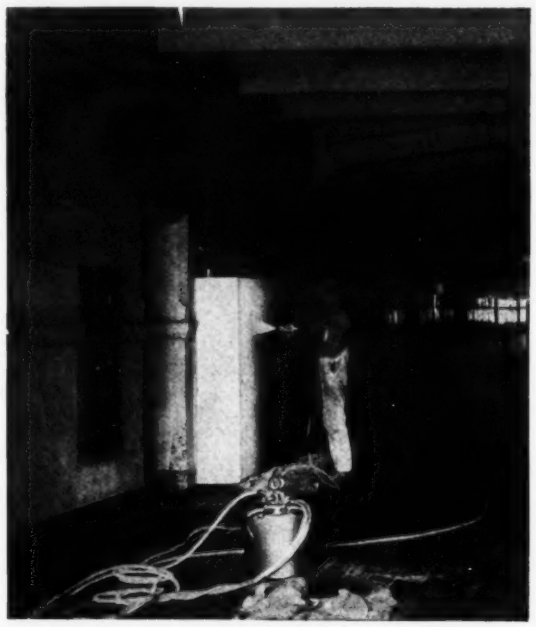
The only school compass that ***never jams.***

Micrometer adjustment of the radius with precision adjustment of the lead makes a perfect compass for exact work.

Every compass tested to proscribe perfect circles with both ink and pencil.

Cut shows compass Actual Size

EAGLE PENCIL CO.
New York, U. S. A.



Adaptability is one of the outstanding features of the DeVilbiss Spray-painting System

Advantages of *High Speed and Low Cost* Spray-painting

One DeVilbiss spray operator does the work of 4 to 5 brush painters. This high speed of spray-painting cuts the working time and effects a substantial saving in labor costs.

Additional spray-painting advantages are: a more uniform and thorough coating; no spattering and dripping of paint; a coating with the hiding power of two brushed coats; use of less scaffolding.

Get the facts—detailed information will be gladly mailed. Address—

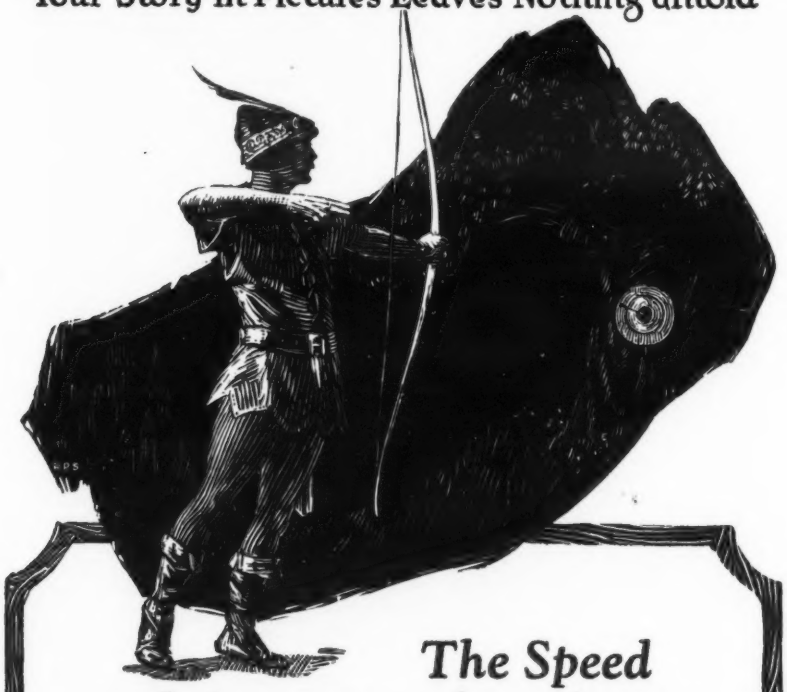
THE DeVILBISS CO. 268 Phillips Ave. TOLEDO, OHIO

New York
Chicago
Detroit
Philadelphia
Indianapolis
San Francisco

DeVilbiss
Spray-painting System

Pittsburgh
Cleveland
Cincinnati
Milwaukee
St. Louis
Minneapolis
Windsor, Ontario

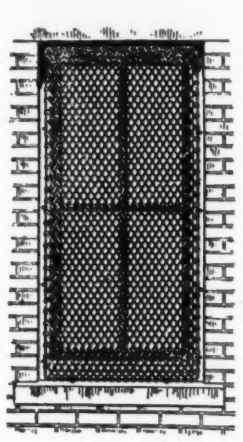
Your Story in Pictures Leaves Nothing Untold



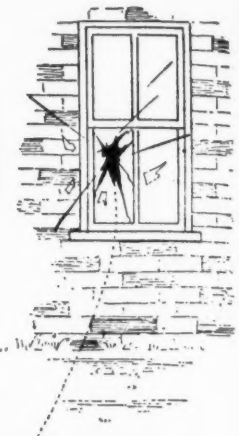
The Speed and Accuracy of an Arrow

Your product and selling points portrayed in pictures arrive in the reader's mind instantly and unmistakably; where words most often miss the mark.

PREMIER ENGRAVING COMPANY
DESIGNERS ENGRAVERS
814 WINNEBAGO ST.
MILWAUKEE, WIS.



BUY GUARDS NOT GLASS



For PERMANENT PROTECTION against damage by accident and prevent tramps and other undesirable persons from entering buildings through windows.



ORDER FROM YOUR JOBBER

BADGER WIRE & IRON WORKS

Cleveland and Twenty-sixth Avenues
MILWAUKEE ••• WISCONSIN

PRINTING SERVICE

TO SCHOOLS

The Cannon Printing Co. is an organization with the knowledge, equipment and experience to render efficient, reliable and satisfactory service to schools.

Quality in set up and printing of Stationery, Forms and Blanks, Accounting Forms, Reports, High School Year Books, Bulletins and School Papers assured, together with prompt delivery at moderate prices. Consider these factors when ordering printing.

Consult with us about your school printing needs and ask for estimates. This service does not place you under any obligation.

CANNON PRINTING COMPANY
131-133-135 Michigan St., Milwaukee, Wis.

INVESTIGATIONS

are more profitable before a Catastrophe than afterward



38 States now have schools safe in case of fire.

FIRE DRILLS, when using a central hallway and staircase, are always a danger, as the world's greatest school catastrophes have proved. A scream or a cry of FIRE can easily create a dreaded panic even during Fire Drill.

A POTTER TUBULAR SLIDE coasts the pupils away from the center of the building to the outside air without the least danger from smoke, gases or fire, and Panics cannot happen.

Recent School Installations

Ironwood, Mich. — Pomona, Calif.
Prince Frederick, Md. — Hibbing, Minn.
Rockford, Ill. — College Place, Wash.
Lowell, Ind. — Madison, Fla.
Baden, Pa. — Azter, N. Mex.
Mt. Harris, Colo. — Humphrey, Ark.
Skiatook, Okla.

U. S. Govt. Schools at:

Phoenix, Ariz. — Ft. Belknap, Mont.
Cheyenne, S. Dak.

PLAN NOW for installation DURING VACATION.

Write for Details and Specifications.

POTTER MANUFACTURING CORP.
1858 Conway Bldg. — CHICAGO

The POTTER TUBULAR SLIDE is the only Fire Escape with a service record that is approved by the Underwriters' Laboratories.



You Receive Full Value When You Buy

FLAGS

MADE OF

Sterling and **Defiance**

All Wool Double Warp Bunting — **Two Ply Cotton Bunting**

THE FLAGS THAT GIVE SERVICE

Sold by dealers everywhere

ARTGLO FLAGS FOR SCHOOLROOMS

MANUFACTURED ONLY BY

ANNIN & CO.

Fifth Ave. at Sixteenth St. — NEW YORK

The Largest Flag House in the World

FEDERAL, STATE and MUNICIPAL GOVERNMENTS use more flags made of STERLING and DEFIANCE buntings than all other brands combined.

Save On Your Cleaning Bill



The reservoir is filled with kerosene or Arbitrin — the most effective cleaning fluid.

WITH THE MILWAUKEE DUSTLESS BRUSH METHOD

TO SCHOOL SUPERINTENDENTS

It will pay you to inquire into this economical—efficient method of cleaning your school floors.



After Ordinary Sweeping

We will gladly send you further detailed information together with our special proposition to schools upon receipt of this blank.



After Dustless Brush Sweeping

School.....

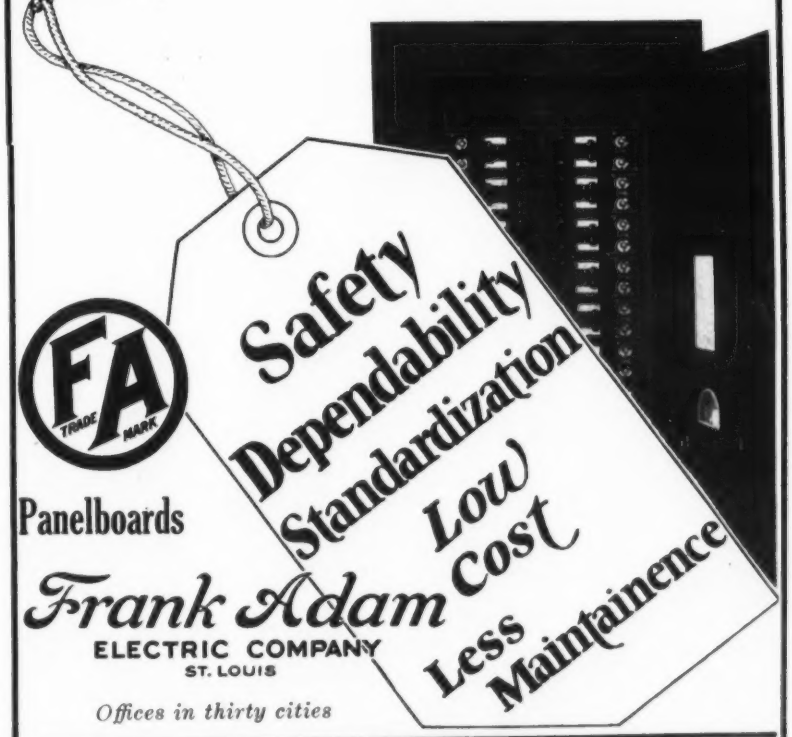
Address.....

Superintendent.....

MILWAUKEE DUSTLESS BRUSH CO.
122-108 22ND STREET :: MILWAUKEE, WISCONSIN

We let the schools write the ticket

There are certain factors peculiar to the school equipment which we have made basic in the (FA) Panelboard construction. You will recognize these at once—let us send you our catalog and estimates free.



Offices in thirty cities

THE NATIONAL ASSOCIATION OF TEACHERS' AGENCIES

Albany Teachers' Agency, Inc.
74 Chapel Street, Albany, N. Y. Est. 1885
Provides Schools and Colleges with Competent Teachers.
Assists Teachers in Securing Positions.
Willard W. Andrews, President — F. Wayland Bailey, Secretary

The Honor Mark of Teacher Agencies

The Rocky Mt. Teachers' Agency
410 U. S. Nat. Bank Bldg. Denver, Colo.
Wm. Ruffer, Ph. D. Manager
Branch Office
Lumber Exchange Bldg. Minneapolis, Minn.

Bryant Teachers' Bureau, Inc.
711 Witherspoon Building, Philadelphia
1213 Flatiron Building, New York City
OUTSTANDING PLACEMENT SERVICE

The Educators' Bureau
W. A. Myers, Manager
322 Occidental Bldg. Indianapolis, Ind.
Efficient, professional, placement service
for
TEACHERS and SCHOOL OFFICIALS
No advance fee — No charge to school officials

Sabins' Educational Exchange
34 years of successful experience
in teacher placement work
Prompt, Efficient and Reliable Service
412 Shops Building Des Moines, Iowa
E. T. HOUSH, Manager
ANNA ALLEE, Assistant Manager

The Cary Teachers' Agency
36 Pearl Street, Hartford, Conn. — 14 Beacon Street, Boston, Mass.
Our business is done by *recommendation*
in answer to *direct calls* from employers

Interstate Teachers' Agency
T. H. Armstrong, Mgr.
500 Duffy-Powers Building Rochester, New York
Placed teachers in twenty-six different states last year.
Twenty years experience. Write for information

Schermerhorn Teachers' Agency
Established 1855
CHARLES W. MULFORD, Prop.
366 Fifth Ave., between 34th & 35th Sts, NEW YORK
Branch Offices: 1086 Union Trust Bldg., Pittsburgh, Pa. 1836 Euclid Ave., Cleveland, Ohio.
A Superior Agency for Superior People. We Register Only Reliable Candidates. Services Free to School Officials.

"Distinguished Personnel Service"
CLARK AND BREWER TEACHERS' AGENCY
FLATIRON BUILDING NEW YORK CITY
E. L. GREGG, Mgr.
SEVEN OFFICES—One Registration for ALL

The Midland Schools Teachers' Agency
308 Peoples Savings Bank Bldg.
Des Moines, Iowa.
Situated in the heart of the land of opportunity for teachers.
H. A. Mitchell, Proprietor

Southern Teacher's Agency
Columbia, S. C. — Chattanooga, Tenn.
Richmond, Va. — Louisville, Ky.
Continuous registration in four offices
No advance fees
Covers Middle Atlantic, South and Middle West

The Davis-Stewart School Service
W. T. DAVIS, Manager
Successor to the Stewart School Service
10th year
Has the Confidence of Nebraska School Men
Try us.
LINCOLN NEBRASKA

The Parker Teachers' Agency
25th Year
State licensed and regulated
Willard N. Parker, Manager
14 So. Carroll St. Madison, Wis.

We place teachers in the leading schools and colleges of many states.
The H. D. Yates Teachers' Bureau
1377 Arcade Building St. Louis, Missouri

SCENERY

COMPLETE STAGE EQUIPMENT

Velour Curtains — Cycloramas
Draperies

"IF IT'S USED ON A STAGE—WE CAN FURNISH IT"

ACME SCENIC STUDIOS
2919-21 W. Van Buren St. Chicago, Ill.

ATLANTIC READERS

A series of five books designed for

CHARACTER-BUILDING

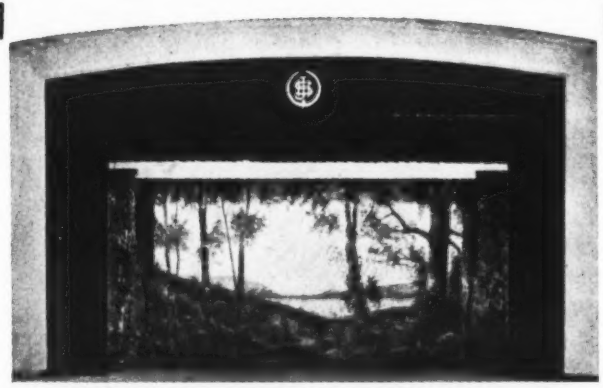
Edited by Dr. Randall J. Condon
Superintendent of Cincinnati Schools

Book I	The Understanding Prince	Grade IV
Book II	High and Far	Grade V
Book III	The Wonderful Tune	Grade VI
Book IV	The Great Conquest	Grade VII
Book V	Outward Bound	Grade VIII

Mailing-price of each volume, 85 cents

LITTLE, BROWN & COMPANY
34 Beacon St., Boston 221 E. 20th St., Chicago

COMPLETE STAGE EQUIPMENT



SEND FOR CATALOGUE

TIFFIN Scenic Studios
TIFFIN, OHIO



S.V.E. PICTUROL Projector has triple condensing lenses, patented double aperture glasses, and only patented Heat Ray Filter. Absolutely fool proof; operates from any circuit or from battery.

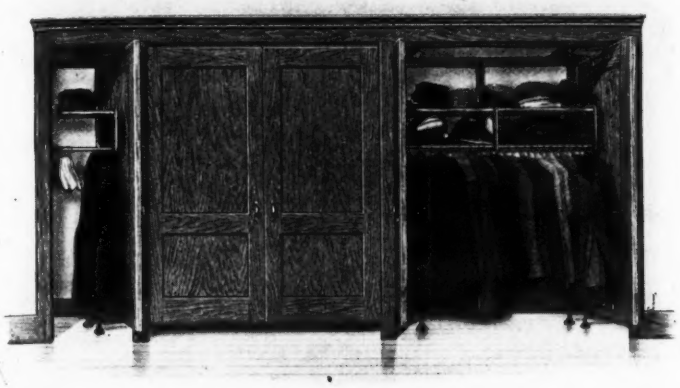
TEACH BY PICTURES

This PICTUROL system lightens the teacher's task and her lessons remain fresh and vivid in the child's mind. PICTUROLS arrest the attention, rivet the interest, help backward pupils, and advance teaching standards. Teaching is made more efficient, effective, and permanent.

FREE The PICTUROL Library for primary grades free. This library of 716 pictures—14 different subjects—is an entirely new set, covering the most popular primary literature. These stories are beautifully illustrated—are arranged on full frames with titles and give the story on the film itself.

Write today for complete catalog of PICTUROLS and request details of our special offer of FREE library with PICTUROL Projector.

SOCIETY FOR VISUAL EDUCATION, Inc.
Manufacturers, Producers and Distributors of Visual Aids
327 S. LaSalle St. Dept. 10 Chicago, Illinois





Yesterday



Today

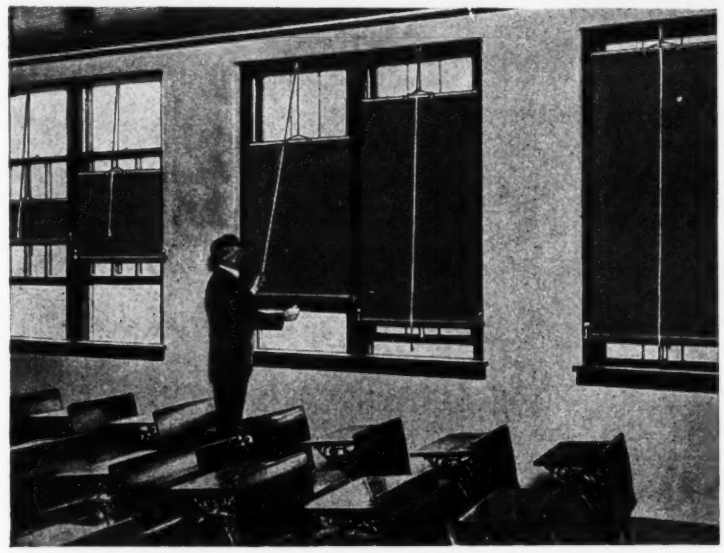
SAVE SPACE AND GREATLY INCREASE CONVENIENCE

with EVANS Vanishing Door WARDROBES

The EVANS VANISHING DOOR, which makes these space-saving wardrobes possible, is so constructed that at a touch it swings back, on double pivoted arms that cannot bind or rattle, to a position at right angles to that when closed. As compared with the ordinary wardrobe—in, for example, a school—EVANS Wardrobes give the same accommodations in 12′ x 2′ as the old kind give in 8′ by the full length of the classroom—besides eliminating the need for special heating and ventilation and the wall which separates cloakroom from classroom. Soundless, mischief-proof, and astonishingly economical of space, EVANS Vanishing Door WARDROBES are being accepted as standard school equipment everywhere. The complete facts—for your files—are interesting. May we send the illustrated catalogue containing them?

W. L. EVANS
WASHINGTON, INDIANA, U. S. A.

Would You Use Slates?



Then Why Use Old Fashioned Shades?

YOU certainly wouldn't want to go back to using the obsolete method of writing on slates. But if you have old fashioned shades in your classrooms you are just as far behind the times.

New developments have come about in the design and construction of shades. As befits the leader, Draper is far ahead of the rest of the field in improvements.

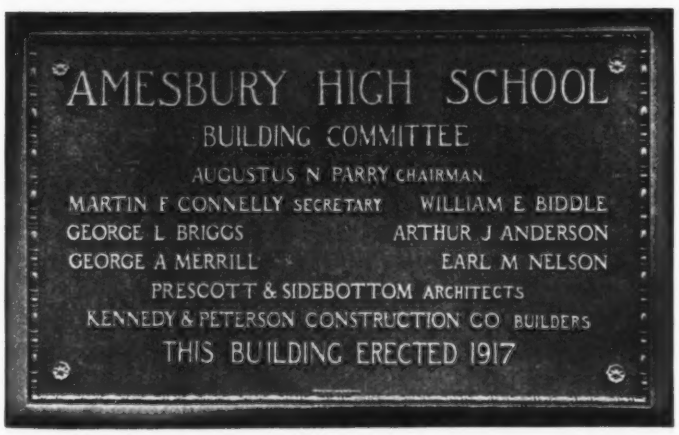
Draper window shades have been developed to allow the best of ventilation and light in the classroom. They are adjustable to any position on the window, thus allowing the most valuable light, top light, to enter. It also permits the free circulation of air without draft above the heads of the students, thus building stronger, healthier children.

Let us show you how an installation will benefit your school.

LUTHER O. DRAPER SHADE CO.
Spiceland - Indiana

SCENERY
OF
QUALITY

KANSAS CITY SCENIC CO.
Since 1887
KANSAS CITY, MO.



HONOR ROLLS—MEMORIAL TABLETS—IN BRONZE
MODELED, CAST AND FINISHED BY
ALBERT RUSSELL AND SONS CO.
125 MERRIMACK ST. NEWBURYPORT, MASS.

Scenery

Asbestos curtains,

Velour curtains

and

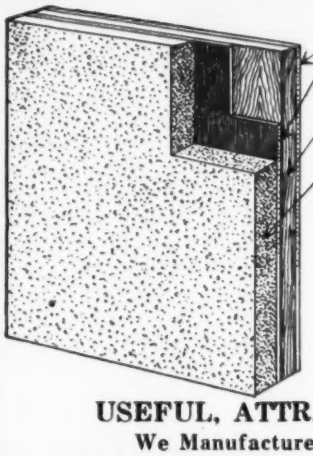
Stage scenery for your Auditorium stage.

Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

Write us for further information or request call from our representative.

Twin City Scenic Company

2819 Nicollet Ave., Minneapolis, Minn.
2310 Cass Ave., Detroit, Mich.



"STANDARD"
CORK
Bulletin Board

THE BEST
BY
ANY TEST

Practical for display purposes in halls and over blackboards in schoolrooms. Easily installed in old or new buildings.

USEFUL, ATTRACTIVE and PERMANENT
We Manufacture All Sizes. Write for Sample.

STANDARD BLACKBOARD CO.
Cor. Second and Walnut Sts. ST. LOUIS, MO.

THE IMPROVED "CLICK SYSTEM"
"MASTER SPECIAL" KEYLESS PADLOCK

An Achievement in Economy and Utility. Made up special for Lockers and Boxes, *in any degree* of security required.



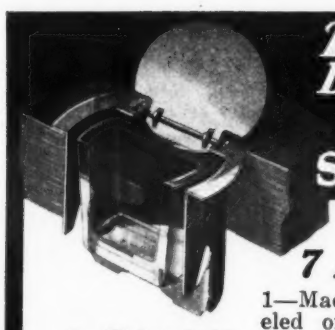
Cut about ½ actual size.

The intense popularity of this padlock for School installations is due to its exceptional service features—economy, durability, efficiency and convenience. It is operable in the dark as readily as in the light—a feature essential to successful performance on lockers. Developed through years of intensive study of the special requirements of locker systems in schools.

Installations of "Click System" padlocks ranging from 50 to over 30,000 are achieving real Service — usually paying small initial cost in saving on lost keys. Buy experience and service—it's cheaper.

Sample and Special proposition to Operating School Officials, on request.

THE J. B. MILLER KEYLESS LOCK CO.
KENT, OHIO, U. S. A.



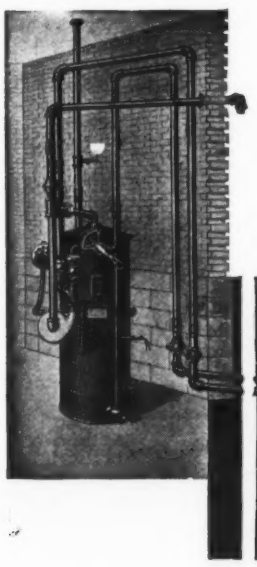
Insist that Your New Desks be Equipped with
TANNEWITZ SANITARY INK-WELLS

They Possess 7 Definite Superiorities

1—Made of heavy material—heavily nickeled or rubberized to prevent corrosion. 2—Unbreakable. 3—Spring barrel protects glass ink container. 4—Unaffected by the shrinking or swelling of desk tops. 5—Locks permanently in desk. 6—Glass ink container has no lugs to chip or break off and is easy to clean. 7—Economical—holds just the proper amount of ink—not enough to become thick and unusable.

Write for free sample for inspection.

THE TANNEWITZ WORKS
FRONT AVE., GRAND RAPIDS, MICH.



ELECTRICALLY OPERATED, AUTOMATIC GAS MACHINE
Requires No Attention.

Write to us for list of colleges and high schools using our machine. Illustrated Catalogue Will Be Sent on Request.

MATTHEWS GAS MACHINE CO.
6 E. Lake Street CHICAGO, ILL.



This Machine Will *Automatically* Produce
GAS

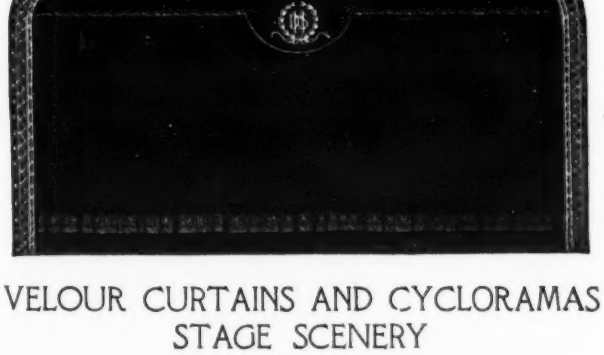
For your laboratories and Domestic Science Department.
In use in hundreds of educational institutions throughout the country.



FIRE ESCAPES
Standard Conveyor Spiral Fire Escapes
Handle the most people in the shortest time.
Eliminate congestion.
Cost very little.
Look well.
Are in use throughout the United States.
Have stood the test of years.

Send for Catalog N.

STANDARD CONVEYOR COMPANY
North St. Paul, Minn.



VELOUR CURTAINS AND CYCLORAMAS
STAGE SCENERY

The Wm. Beck & Sons Co.
Established 1858
2104-2110 Highland Ave. Cincinnati, Ohio



Why don't you purchase the best goods for your school? Our revolving blackboards and roll blackboards have been in constant use in all the Public Schools in New York, and the principal cities for thirty-six years, which is a sufficient guarantee. Send for our illustrated catalog and discount sheet and compare prices with other manufacturers.

N. Y. Silicate Book Slate Co.
20-22-24 Vesey Street
NEW YORK

THE ARMSTRONG COMPANY
SECTIONAL SCHOOL BUILDINGS



The **ARMSTRONG SECTIONAL SCHOOL BUILDINGS** are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best **Portable School Buildings** on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we wil. send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY, P. O., 401, ITHACA, NEW YORK

TEACHER AGENCIES

COLLEGE GRADUATES recommended exclusively
—except in vocational fields. No elementary school positions. Any subject from high school up. Leading bureau for teachers of Commercial, Industrial, and Physical Education. 26th year. Covers all states. Tell us your needs.

SPECIALISTS' EDUCATIONAL BUREAU

A BUREAU FOR SPECIALISTS

ROBERT A. GRANT, Pres.
320 N. Grand, St. Louis, Mo.

FISK TEACHERS' AGENCY
1020 McGEE ST.
KANSAS CITY. MO.
J. A. DEVLIN, MANAGER

Associated with
E. O. Fisk Agencies.

Thurston Teachers' Agency, Inc.
224 South Michigan
CHICAGO, ILLINOIS

Careful selection of candidates. Competent superintendents, principals, and teachers. Complete records available for your inspection at any time.

THE TEACHERS PLACEMENT BUREAU

We need teachers for Grades, High School, Normal and College.
To School Officials we respectfully solicit your patronage. Write or wire us, our expense, your requirements.

HOOSIER EMPLOYMENT SERVICE,

C. Stonecipher, Mgr.
916 STATE LIFE BLDG.

Licensed.
INDIANAPOLIS, IND.

Great American Teachers Agency

We are pleased to announce that we have acquired the PENN EDUCATIONAL BUREAU. 48th year. "Oldest teachers agency in the United States under one continuous management." By this union we have added many years of experience to our efficient organization. We are now able to serve school officials and teachers better than ever before. Office 205 North Seventh St., Allentown, Pa., P. O. Box 157.



"OBCO" STEEL FLAG POLES

They are storm and lightning proof, smooth and straight, last a lifetime, cost less than wood poles.

Our flag poles are constructed of steel pipe sections, telescoping into each other and held in place with steel pins, thereby making a tight and rigid joint.

Erection is very simple, and with the full directions furnished by us anyone can do it.

WRITE FOR CIRCULAR AND PRICES.

OTTO BIEFELD COMPANY
118-206 N. Water St. Watertown, Wisconsin

FISK TEACHERS AGENCY,
28 E. Jackson Blvd., Chicago

Over forty years a leader among agencies. Its code of ethics adopted almost in its entirety by the National Association of Teachers Agencies. An unexcelled list of Superintendents, Principals, Business Managers, Librarians, Dietitians, Nurses, Athletic Coaches, and Directors of Physical Education, as well as Teachers for every department in the public schools, by means of which School Boards may profit without cost to them.

AMERICAN COLLEGE BUREAU,
310 So. Michigan Ave., Chicago

Formerly located in the Chicago Temple, it has recently found more commodious quarters on the sixteenth floor of the new Straus Building. Does College and University work only.

The above organizations, among the largest in the U. S., are under the direction of C. E. Goodell, 28 East Jackson Boulevard, Chicago.

THE CONTINENTAL TEACHERS' AGENCY
BOWLING GREEN, KENTUCKY

has for thirty-six years been serving school officials and teachers in every state in the Union.

ALBERT Teachers' Agency
Established 1885

25 East Jackson Blvd., Chicago
535 Fifth Avenue, New York
Peyton Bldg., Spokane, Washington
York Rite Temple, Wichita, Kansas

Still under same active management. Best Schools and Colleges permanent clients. Best qualified men and women on our available list. Prompt service.

JACKSON TEACHERS' AGENCY 29 WEYBOSSET STREET PROVIDENCE, R. I.
Worthwhile opportunities for able teachers.
CLARA I. BINNING, Manager
For many years familiar with placement problems,

STEELE'S DUCK SHADES—Made in 15 Styles



Ask us for catalog and prices
Write us for full information and best prices.

OLIVER C. STEELE MFG. CO.
Oldest Manufacturers of Duck Shades in America

Spiceland — OLIVER C. STEELE MFG. CO. DUCK SHADES SPICELAND, IND. — Indiana

---

CLASSIFIED WANTS

DOES YOUR SCHOOL MEDICAL PERSONNEL NEED REPLACEMENTS?

A—Registered Nurse, Wisconsin, post graduate Public Health, attractive, desires position vicinity Milwaukee at $120.

B—M.D., Yale, American, Protestant, 17 years' general practice including 2 years in school work, wishes school appointment East. Licensed Connecticut and New York.

C—D.D.S., Marquette, American, age 27, 3 years' experience, seeks school work at $200. Licensed Illinois. High professional standing.

No. 1804, Aznoe's Central Registry,
30 North Michigan Avenue, Chicago, Illinois.

FELT SPECIALTIES

We make a complete line of various felt specialties for parades, home comings, athletic events, etc. Send for our catalog showing our line and prices. Bradford & Company, Inc., St. Joseph, Mich.

TICKETS

Tickets in Rolls for lunchrooms and athletic events. Reserved seat tickets numbered according to seating arrangement of your Auditorium or Stadium at attractive prices depending upon number of seats. Write for samples. Rees Ticket Co., 404 South Tenth St., Omaha, Nebr.

School Superintendents and Buyers take notice. We offer an unexcelled service to schools in the printing of tickets for all school activities. Roll, strip, or book tickets for use at games, entertainments, or in the cafeteria, and reserved seat tickets for your auditorium printed at reasonable prices. National Ticket Company, Shamokin, Pa.

INKWELLS

School Desk Inkwells—We manufacture the "Cleveland," "Universal," and improved "Chicago" school desk inkwells. Write for samples and prices. Cleveland Inkwell Co., 6529 Euclid Ave., Cleveland, O.

DIPLOMAS

DIPLOMAS artistically engrossed in Old English Text—price, 35c up—is a function of quality of engrossing. Clarence C. French (Parisian engrosser), Box 326, Saugatuck, Mich.

SITUATION WANTED

Louis Lindner, 609 West 191st Street, New York City, manufacturers' representative, specializing in school and institutional supplies, seeking additional items of merit—for Greater New York.

LIBRARY SUPPLIES

Supplies, manuals, and all necessities for maintaining school libraries. Illustrated pamphlet "First steps in organizing the school library" sent free. Gaylord Bros., Inc., Syracuse, N. Y., and Stockton, Calif.

NIBROC TOWELS

Best for Schools—



For Life and Health

THE span of life has been lengthened and life itself made happier and more healthy—just by little things; by clean hands in milking, clean foods served in clean plates and cups; cleanliness at the source of drinking water;

and clean hands at School.

School children now have a fair fighting chance to grow up in health and vigor because of the little safeguards placed upon their way.

The *Nibroc Towel* has taken a modest place among the agencies of good health in the public schools.

It is clean; it is the children's safeguard in the washroom; and it is —besides all that—a satisfactory towel—soft, absorbent, efficient, tough and enduring of rough quick use.

WHITE ENAMELED STEEL CABINET
(Provided with lock)
Delivers but *ONE NIBROC TOWEL* at a time, clean and fresh to the user.
Capacity of Cabinet 300 Nibroc Towels.

Tear out this Advertisement — Sign — and Mail to us

and without obligation to you, our representative will call with samples and advise you regarding the advantages in using *Nibroc Towels.*

Name..... *Address*.....

Manufactured by

BROWN COMPANY

PORTLAND *founded* 1852 MAINE

BRANCH OFFICES

BOSTON — NEW YORK — ATLANTA — PITTSBURGH
CHICAGO — ST. LOUIS — MINNEAPOLIS — SAN FRANCISCO

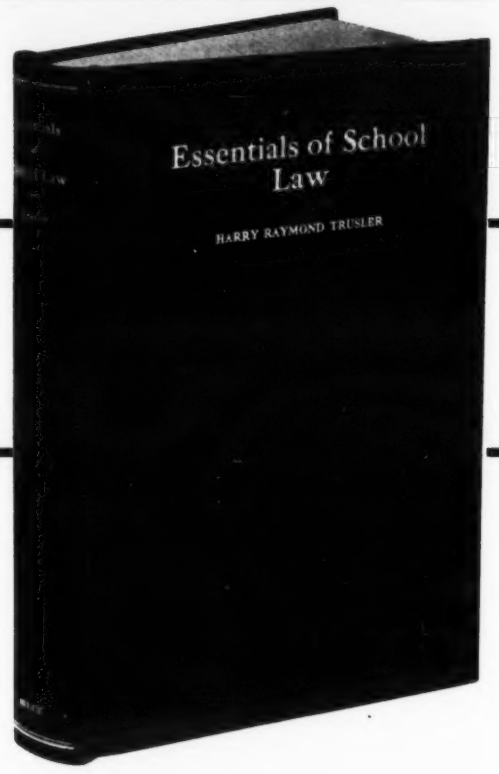
School Board Journal

DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

ACOUSTICS
Celotex Company, The
AIR CONDITIONING
American Blower Company
Buckeye Blower Company
Buffalo Forge Company
Nelson Corporation, The Herman
AIR WASHERS
American Blower Company
Buffalo Forge Company
ALUMINUM WARE
Cleveland Range Company, The
ARCHITECTS
(See Schoolhouse Architects' Directory)
ASH HOISTS
Gillis & Geoghegan
AUDITORIUM SEATING
American Seating Company
Arlington Seating Company
Derby & Company, Inc., P.
Heywood-Wakefield Co.
Kundtz Company, The Theodor
National School Equipment Co.
Peabody School Furniture Co.
Rowles Co., E. W. A.
Standard Mfg. Company
Steel Furniture Company
BASEMENT SASH, STEEL
Detroit Steel Products Company
BASEMENT WINDOWS, STEEL
Detroit Steel Products Company
BENCH LEGS
Angle Steel Stool Company
Lupton's Sons Co., David
BLACKBOARD CLEANER
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Oakite Products, Inc.
Palmer Products, Inc.
BLACKBOARDS—MFRD.
Beckley-Cardy Company
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Standard Blackboard Company
Weber Costello Company
BLACKBOARD—SLATE
Natural Slate Blackboard Co.
Penna. Structural Slate Co.
Rowles Co., E. W. A.
BLEACHERS
Circle A Products Corp.
Leavitt Mfg. Company
Wayne Iron Works
BOILERS
Heggie Simplex Boiler Company
Kewanee Boiler Company
Pacific Steel Boiler Corp. of Ill.
BOILER COMPOUND
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Palmer Products, Inc.
BOOK BINDING
National Library Bindery Co., The
BOOK CASES
Peterson & Company, Leonard
Remington Rand Bus. Service, Inc.
BOOK COVERS
Holden Patent Book Cover Co.
Iroquois Publishing Company
Walraven Book Cover Co., A. T.
BOOKKEEPING MACHINES
Remington Rand Bus. Service, Inc.
BOOK PUBLISHERS
American Book Company
Beckley-Cardy Company
Bruce Publishing Co.
Gregg Publishing Company
Harter School Supply Company
Houghton, Mifflin Co.
Iroquois Publishing Company
Laidlaw Brothers
Merriam Co., G. & C.
Winston Co., The John C.
BRUSHES
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Milwaukee Dustless Brush Co.
Palmer Products, Inc.
BUILDING MATERIALS
Asbestos Buildings Company
Barrett Company, The
Detroit Steel Products Company
Indiana Limestone Company
Lupton's Sons Co., David
National Assn. of Marble Dealers
Structural Slate Company
Truscon Steel Company
BUILDING STONE
National Assn. of Marble Dealers
BULLETIN BOARDS
Beckley-Cardy Company
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Weber Costello Company
BUSSES
General Motors Corporation
Graham Brothers
CAFETERIA EQUIPMENT
Angle Steel Stool Company
Blickman, Inc., S.
Cleveland Range Company, The
Dougherty & Sons, Inc., W. F.
Pick & Company, Albert
Sani Products Co,. The
Standard Gas Equipment Corp.
Van Range Co., John
CERTIFICATES OF AWARDS
Goes Lithographing Co.
CHAIRS
Beckley-Cardy Company
Clarin Manufacturing Co.
Derby & Company, Inc., P.
Maple City Stamping Company
Marble Chair Company, B. L.
Stakmore Company
Standard School Equipment Co.
CHAIRS—FOLDING
Angle Steel Stool Company
Maple City Stamping Co.
Rowles Co., E. W. A.
Royal Metal Mfg. Co.
Stakmore Company
Standard Mfg. Company
CHALKS
American Crayon Company
CHARTS
Weber Costello Company
CLEANING COMPOUNDS
Continental Chemical Corporation
Hillyard Chemical Company
Midland Chem. Laboratories, Inc.
Oakite Products, Inc.
Palmer Products, Inc.
CLEANING PRODUCTS
Huntington Laboratories, Inc., The
Palmer Products, Inc.
CLOCKS—PROGRAM
Landis Eng. & Mfg. Co.
Standard Electric Time Co.
CLOTH BLACKBOARDS
Beckley-Cardy Company
N. Y. Silicate Book Slate Co.
Weber Costello Company
COOKING APPARATUS
Cleveland Range Company, The
Dougherty & Sons, Inc., W. F.
CORK TILE AND CORK CARPET
Bonded Floors Co., Inc.
CRAYONS
American Crayon Company
Beckley-Cardy Company
Binney & Smith
National Crayon Co.
Rowles Co., E. W. A.
Weber Costello Company
CRAYON COMPASSES
N. Y. Silicate Book Slate Co.
Weber Costello Company
CRAYON TROUGHS
Dudfield Manufacturing Company
Weber Costello Company
DAMP-PROOFING
Vortex Mfg. Co.
DEAFENING QUILT
Celotex Company, The
DESKS—OFFICE
Beckley-Cardy Company
Gunn Furniture Co.
Imperial Desk Company
Rowles Co., E. W. A.
DIPLOMAS
Beckley-Cardy Company
Goes Lithographing Co.
DISHWASHERS
Cleveland Range Company, The
Colt's Patent Fire Arms Mfg. Co.
DISHWASHING COMPOUND
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Oakite Products, Inc.
DISINFECTANTS
Continental Chemical Corporation
Hillyard Chemical Company
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.
DISPLAY RACKS
Hammett Company, J. L.
DOMESTIC SCIENCE EQUIP.
Christiansen, C.
Cleveland Range Co.
Dougherty & Sons, Inc., W. F.
Kewaunee Mfg. Co.
Peterson & Co., Leonard
Pick & Co., Albert
Sheldon & Co., E. H.
Standard Gas Equipment Corp.
Van Range Co., John
DOOR CHECKS
Norton Door Closer Co.
Sargent & Company
DOOR HOLDING EQUIPMENT
Richards-Wilcox Mfg. Co.
DOORS, SOUND PROOF
Irving Hamlin
DOORS, STEEL-FIREPROOF
Detroit Steel Products Company
Lupton's Sons Co., David
DRAFTING DEPT. FURNITURE
Christiansen, C.
Kewaunee Mfg. Company
Sheldon & Co., E. H.
DRAFTING ROOM FURNITURE
DRAWING EQUIPMENT
Angle Steel Stool Company
Eagle Pencil Company
DRINKING FOUNTAINS
Century Brass Works, Inc.
Clow & Sons, James B.
Murdock Mfg. & Supply Co., The
National Utilities Corp.
Nelson Mfg. Company, N. O.
Rowles Co., E. W. A.
Rundle-Spence Mfg. Company
Taylor Company, Halsey W.
ELECTRICAL EQUIPMENT
Adam Electric Company, Frank
Cleveland Range Company, The
ERASERS
Beckley-Cardy Company
Palmer Products, Inc.
Rowles Co., E. W. A.
Weber Costello Co.
ERASER CLEANERS
Palmer Products, Inc.
Weber Costello Company
FENCES
Anchor Post Fence Company
Cyclone Fence Co.
Page Fence & Wire Prod. Assn.
Stewart Iron Works Co., The
Wayne Iron Works
FILING SYSTEMS
Remington Rand Bus. Service, Inc.
FIRE ALARM SYSTEMS
Holtzer-Cabot Electric Company
Standard Electric Time Company
FIRE ESCAPES
Logan Co. (Formerly Dow Co.)
Potter Manufacturing Corp.
Standard Conveyor Company
FIRE EXIT LATCHES
Potter Manufacturing Corp.
Sargent & Company
Steffens-Amberg Company
Vonnegut Hardware Co.
FIREPROOF DOORS
Detroit Steel Products Co.
Lupton's Sons Co., David
FIREPROOFING MATERIALS
Asbestos Buildings Company
FLAGS
Annin & Co.
FLAG POLES
Bielfeld & Company, Otto
Nelson Mfg. Co., N. O.
Rowles Co., E. W. A.
FLOORING
Bonded Floors Co., Inc.
Bruce Company, E. L.
Maple Flooring Mfrs. Ass'n.
Oak Flooring Bureau
United States Quarry Tile Co.
FLOORING—COMPOSITION
Bonded Floors Co., Inc.
Moulding Floor Company, Thos.
Rubberstone Corporation
The Duraflex Company
FLOOR COVERING
Bonded Floors Co., Inc.
Moulding Floor Company, Thos.
Heywood-Wakefield Co.
The Duraflex Company
FLOOR FINISH
Continental Chemical Corporation
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Palmer Products, Inc.
FLOORING—MASTIC
Moulding Floor Company, Thos.
The Duraflex Company
FLOOR TREATMENTS
Huntington Laboratories, Inc., The
Midland Chem. Laboratories, Inc.
Palmer Products, Inc.
FLOOR TILE
Bonded Floors Co., Inc.
Norton Company
FLUSH VALVES
Bowlus Manufacturing Co., The
Clow & Sons, James B.
FOLDING CHAIRS
Clarin Mfg. Company
Maple City Stamping Company
Stakmore Company
Standard Mfg. Company
FOLDING PARTITIONS
Hamlin, Irving
Richards-Wilcox Mfg. Co.
Wilson Corp., Jas. G.
FURNITURE
American Seating Co.
Arlington Seating Company
Angle Steel Stool Company
Beckley-Cardy Company
Cleveland Range Company, The
Columbia School Supply Company
Derby & Company, Inc., P.
Gunn Furniture Company
Heywood-Wakefield Co.
Imperial Desk Company
Kewaunee Mfg. Company
Kundtz Company, The Theo.
Maple City Stamping Company
Marble Chair Co., The B. L.
National School Equipment Co.
Peabody School Furniture Co.
Readsboro Chair Company
Remington Rand Bus. Service, Inc.
Rowles Co., E. W. A.
Royal Metal Mfg. Co.
Standard School Equipment Co.
Steel Furniture Company
Stakmore Company
Toledo Metal Furniture Company
Welfare Seating Company
GAS MACHINES
Matthews Gas Machine Co.
GLASS
Manufacturers Glass Company
Pittsburgh Plate Glass Company
Vitaglass Corporation
GLOBES
Beckley-Cardy Company
Cram Company, The Geo. F.
Rand, McNally & Company
Weber Costello Company
GRANDSTANDS
Wayne Iron Works
GYMNASIUM APPARATUS
Chicago Gymnasium Equip. Co.
Medart Mfg. Co., Fred
Narragansett Machine Company
HEATING SYSTEMS
American Blower Company
Buckeye Blower Co.
Buffalo Forge Company
Clow & Sons, Jas. B. ("Gasteam")
Dunham Company, C. A.
Heggie Simplex Boiler Company
Nelson Corp., The Herman
Pacific Steel Boiler Corp. of Ill.
Peerless Unit Vent. Co., Inc.
B. F. Sturtevant Co.
HYDRANTS
Murdock Mfg. & Supply Co., The
INCINERATORS
Kerner Incinerator Co.
INKS
American Crayon Company
Copper & Brass Research Ass'n
INK WELLS
Squires Inkwell Company
Tannewitz Works, The
U. S. Inkwell Company
JANITOR SUPPLIES
Continental Chemical Corporation
Dougherty & Sons, Inc., W. F.
Huntington Laboratories, Inc., The
Milwaukee Dustless Brush Co
Midland Chem. Laboratories, Inc.
Oakite Products, Inc.
Palmer Products, Inc.
Pick & Co., Albert
LABORATORY FURNITURE
Angle Steel Stool Company
Alberene Stone Company
Buffalo Forge Company
Columbia School Supply Company
Kewaunee Mfg. Company
Peterson & Co., Leonard
Sheldon & Company, E. H.
LABORATORY SUPPLIES
Knott Apparatus Co., L. E.
Leitz, Inc., E.
LADDERS
Dayton Safety Ladder Co., The
LAUNDRY EQUIPMENT
American Laundry Machinery Co.
LIBRARY FURNITURE
Peterson & Company, Leonard
Remington Rand Bus. Service, Inc.
LIBRARY SUPPLIES
Gaylord Brothers
LIGHTING FIXTURES
Beardslee Chandelier Mfg. Co.
Gleason-Tiebout Glass Co.
Graybar Electric Co., Inc.
Holophane Glass Company
Kayline Company, The
Miller Company, The
Westinghouse Elec. & Mfg. Co.
LINOLEUMS
Bonded Floors Co., Inc.
LIQUID FLOOR HARDENER
Sonneborn Sons, L.
LIQUID SOAPS
Continental Chemical Corporation
Huntington Laboratories, Inc.
Midland Chem. Laboratories, Inc.
Palmer Products, Inc.
LOCKERS
All-Steel-Equip Company
Berger Manufacturing Company
Durabilt Steel Locker Co.
Lyon Metallic Mfg. Co.
Medart Mfg. Co., Fred
Narragansett Machine Company
Wilson Corp., Jas. G.
LOCKS—KEYLESS
Dudley Lock Corporation, The
Miller Keyless Lock Co., J. B.
MAPS
Beckley-Cardy Company
Cram Company, The Geo. F.
Rand, McNally & Company
Weber Costello Company
MAP HOLDERS
Hammett Company, J. L.
MEMORIAL TABLETS
Russell & Sons Co., Albert
METAL LATH
Berger Manufacturing Company
METAL BLACKBOARD TRIM
Dudfield Manufacturing Company
MICROSCOPES
Bausch & Lomb Optical Co.
Leitz, Inc., E.
Spencer Lens Company
MODELING CLAY
American Crayon Company
Hammett Company, J. L.
MOTION PICTURES
Pathe Exchange, Inc.
PAINTS
American Crayon Company
Hockaday Company, The
Pittsburgh Plate Glass Company
U. S. Gutta Percha Paint Co.
Vortex Mfg. Co.
PAINT SPRAYING EQUIPMENT
DeVilbiss Mfg. Co., The
Vortex Mfg. Co.
PANIC EXIT DEVICES
Potter Manufacturing Corp.
Steffens-Amberg Company
Vonnegut Hardware Company
PAPER
American Crayon Company
Beckley-Cardy Company
PASTE
American Crayon Company
PENS
Esterbrook Pen Company
PENCILS
American Crayon Company
Eagle Pencil Company
PENCIL SHARPENERS
Automatic Pencil Sharpener Co.
PIANOS
Aeolian Company, The
American Piano Company
PLAYGROUND APPARATUS
Chicago Gymnasium Equip. Co.
Everwear Mfg. Company
Hill-Standard Company
Medart Mfg. Co., Fred
Mitchell Manufacturing Co.
Narragansett Machine Company
Potter Manufacturing Corp.
PLAYGROUND ENCLOSURES
Anchor Post Fence Company

(Continued on Page 193)



Special University Edition

Essentials of School Law

By HARRY RAYMOND TRUSLER
Dean, College of Law,
University of Florida

POPULAR priced "University Edition" of a book which formerly sold for $6.00 is now available.

ALTHOUGH Trusler's "ESSENTIALS OF SCHOOL LAW was announced less than one year ago as basically a law book, the number of universities desiring to adopt it as a basal text has made advisable the announcement of a special "University Edition" to sell at $4.00.

ESSENTIALS OF SCHOOL LAW is a thorough, convincing compilation of the law which affects schools, together with questions of law presenting themselves most frequently in professional school work.

IT IS designed to serve as a basis of instruction in school law in Normal schools, Teachers' colleges and Universities, and as an authoritative reference book for both lawyers and schoolmen.

WHETHER selected for class instruction or as a valuable addition to either school or private library, the following outstanding points will have an appeal:

1. A thorough presentation of practical problems in school law prepared by an experienced teacher and law professor.
2. The rights and duties of students, teachers, schools (both public and private), and school authorities, are discussed.
3. There is much new material never before collected in book form; many questions are analyzed and developed with a minuteness never before attempted.
4. It is not a mere digest of decisions, but a critical organization of them with comments, criticisms, and suggestions.
5. It is not a mere summary of abstract principles, but an application of them to concrete situations, with illuminating excerpts from court decisions.
6. It supplies a working understanding of the legal principles whereby old disputes have been settled and new ones will be—and to serve as insurance against school litigation.

Ten days free examination.

Cloth, 478 pages; 6 by 9 inches. Price, $4.00

Are you familiar with the Bruce books on Modern Languages, Penmanship, Science, Drawing, Auto Mechanics, Craft Work, Metal and Woodworking and other subjects? We welcome your inquiry.

THE BRUCE PUBLISHING COMPANY

305 Montgomery Building - - - - Milwaukee



BRUCE-MILWAUKEE

School Board Journal

DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

(Continued from Page 191)

PLUMBING FIXTURES
Bowlus Manufacturing Co., The
Bradley Wash Fountain Company
Century Brass Works, Inc.
Church Mfg. Company, C. F.
Clow & Sons, James B.
Hoffmann & Billings Mfg. Co.
Nelson Mfg. Company, N. O.
Rundle-Spence Mfg. Company
Vogel Company, Joseph A.

POINTERS
N. Y. Silicate Book Slate Co.
Weber Costello Company

PORTABLE BLEACHERS
Detroit Atlas Portable Bleacher Co.

PORTABLE SANDING MACHINES
Clarke Sanding Machine Company

PORTABLE SCHOOLHOUSES
American Portable House Co.
Armstrong Company, The
Asbestos Buildings Co.
Circle A Products Corporation
Harris Brothers Company

PROJECTION LANTERNS
Spencer Lens Co.
Trans-Lux Daylight Picture Screen Corp.

PROJECTORS
Bausch & Lomb Optical Co.
Holmes Projector Company
International Projector Corp.

PUBLIC ADDRESS SYSTEMS
Graybar Electric Co., Inc.

RANGES
Cleveland Range Company, The

REINFORCED STEEL
Berger Manufacturing Company

RECORD SYSTEMS
Remington Rand Bus. Service, Inc.

ROLLING PARTITIONS
Acme Partition Company
Wilson Corp., Jas. G.

ROOFING
Barrett Company, The

SANDERS
Clarke Sanding Machine Company

SAFETY STAIR TREADS
American Abrasive Metals Co.

SASH OPERATING DEVICES, STEEL
Detroit Steel Products Company

SASH, STEEL
Detroit Steel Products Company
Lupton's Sons Co., David

SASH, VENTILATING
Detroit Steel Products Company

SCIENTIFIC APPARATUS—Electr.
Rowles Co., E. W. A.
Standard Electric Time Company

SCENERY
Windowcraft Valance & Drapery Co.

SCREENS—PICTURE
Trans-Lux Daylight Picture Screen Corp.

SCRUBBING EQUIPMENT
Continental Chemical Corporation
Finnell System, The

SHOWERS
Clow & Sons, James B.
Hoffmann & Billings Mfg. Co.

SIGNAL SYSTEMS
Holtzer-Cabot Electric Company

SKYLIGHTS—METAL
Lupton's Sons Co., David

SLATED CLOTH
Beckley-Cardy Company
N. Y. Silicate Book Slate Co.
Weber Costello Company

SOAP DISPENSING EQUIPMENT
Palmer Products, Inc.

SPRAY PAINTING EQUIPMENT
Vortex Mfg. Co.
DeVilbiss Mfg. Co., The

STAFF LINERS
Weber Costello Company

STAGE CURTAINS, EQUIPMENT AND SCENERY
Acme Scenic Studios
Beck & Sons Co., The Wm.
Kansas City Scenic Co.
Lee Lash Studios
Novelty Scenic Studios
Tiffin Scenic Studios
Twin City Scenic Company
Universal Scenic Studios, Inc.

STAGE EQUIPMENT
Windowcraft Valance & Drapery Co.

STAIR TREADS
Alberene Stone Company
American Abrasive Metals Co.
American Blue Stone Company
Norton Company
Safety Stair Tread Co., The

STATIONERS
Blair Company, J. C.

STEEL JOISTS
Truscon Steel Company

STEEL SASHES
Detroit Steel Products Company

STEEL STORAGE CABINETS
Durabilt Steel Locker Co.
Durand Steel Locker Company
Medart Mfg. Co., Fred

STEEL WINDOWS
Detroit Steel Products Company
Lupton's Sons Co., David

STEREOPTICONS
Society for Visual Education, Inc.

STOOLS—STEEL
Angle Steel Stool Company

TABLES
Derby & Company, Inc., P.
Gunn Furniture Company
Remington Rand Bus. Service, Inc.
Rinehimer Bros. Mfg. Co.

TABLETS
Blair Company, J. C.

TALKING MACHINES
Victor Talking Machine Co.

TEACHER AGENCIES
Natl. Assn. of Teacher Agencies
Teacher Agencies Directory

TELEPHONE SYSTEMS
Graybar Electric Co., Inc.
Holtzer-Cabot Electric Company
Standard Electric Time Company

TEMPERATURE REGULATION
Buffalo Forge Company
Johnson Service Company

TOILET PAPER AND FIXTURES
A. P. W. Paper Company
National Paper Products Co.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.

TOWELS
A. P. W. Paper Company
Bay West Paper Company
Brown Company
National Paper Products Co.
Palmer Products, Inc.

TOILET PARTITIONS
Clow & Sons, James B.
Litterer Bros. Mfg. Company
Mills Company, The
Sanymetal Products Company
Structural Slate Company
Weis Mfg. Co., Henry

TYPEWRITERS
Remington Rand Bus. Service, Inc.
Underwood Typewriter Company

VACUUM CLEANING SYSTEMS
Spencer Turbine Company, The
Invincible Vac. Cleaner Mfg. Co.

VACUUM PUMPS
Dunham Company, C. A.
Nash Engineering Company

VALVES—FITTINGS
Bowlus Manufacturing Co., The
Clow & Sons, James B.

VENETIAN BLINDS
Hough Shade Corporation

VENTILATING SYSTEMS
Buckeye Blower Company
Buffalo Forge Company
Dunham Company, C. A.
Nelson Corp., The Herman
Peerless Unit Vent. Co., Inc.
Sturtevant Company, B. F.

VENTILATORS
Buffalo Forge Company
Globe Ventilator Company
Lupton's Sons Co., David

VOCATIONAL EQUIPMENT
Buffalo Forge Company
Christiansen, C.
Columbia School Supply Co.
Sheldon & Company, E. H.
Wallace & Co., J. D.

WARDROBES
Evans, W. L.
K-M Supply Company
Wilson Corp., Jas. G.

WASTE PAPER BASKETS
National Vulcanized Fibre Co.

WASTE RECEPTACLES
Solar-Sturges Mfg. Co.

WATER CLOSETS
Bowlus Manufacturing Co., The

WATER COLORS
American Crayon Company

WATER PURIFIERS
Clow & Sons, Jas. B. (R. U. V.)
Wallace & Tiernan, Inc.

WATER SYSTEMS
National Utilities Corp.

WEATHERSTRIPS
Athey Company, The

WINDOWS—ADJUSTABLE
Austral Window Company
Mutschler Brothers Company
Detroit Steel Products Company
Lupton's Sons Co., David
Truscon Steel Company
Universal Window Company
Williams Pivot Sash Company

WINDOW FIXTURES
Austral Window Company
Columbia Mills, Inc.
Peerless Unit Ventilation Co., Inc.
Williams Pivot Sash Company

WINDOW GUARDS
American Fence Construction Co.
Badger Wire & Iron Works
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

WINDOWS—REVERSIBLE
Austral Window Company
Detroit Steel Products Company
Williams Pivot Sash Company

WINDOW SHADE CLOTH
Columbia Mills, Inc.
Du Pont de Nemours & Co., E. I.

WINDOW SHADES
Athey Company
Beckley-Cardy Company
Columbia Mills, Inc.
Draper Shade Co., Luther O.
Du Pont de Nemours & Co., E. I.
Hough Shade Corporation
Steele Mfg. Co., Oliver C.

WINDOW SHADE ROLLERS
Columbia Mills, Inc.
Hartshorn Company, Stewart

WINDOWS, STEEL
Detroit Steel Products Company

WIRE GUARDS
Badger Wire & Iron Works
Cyclone Fence Co.
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

WOODWORKING MACHINERY
Buffalo Forge Company
Wallace & Co., J. D.

ADVERTISERS' REFERENCE INDEX

	Page
Acme Partition Company	182
Acme Scenic Studios	186
Adam Electric Co., Frank	186
A. P. W. Paper Company	3rd Cover
Alberene Stone Company	134
All-Steel-Equip Company	88
American Abrasive Metals Co.	167
American Blower Company	145
American Blue Stone Co.	181
American Book Company	174
American Crayon Company	183
American Laundry Mchy. Co.	18
American Piano Company	161
American Portable House Co.	154
American Seating Co.	94 & 95
Anchor Post Fence Company	10
Angle Steel Stool Company	35
Annin & Co.	185
Arlington Seating Company	24
Armstrong Company, The	188
Asbestos Buildings Co.	127
Athey Company	82 & 83
Austral Window Company	4th Cover
Automatic Pencil Sharpener Co.	183
Badger Wire & Iron Works	184
Barrett Company, The	2
Bausch & Lomb Optical Co.	179
Bay West Paper Company	132
Beardslee Chandelier Mfg. Co.	72
Beck & Sons Co., The Wm.	188
Berger Mfg. Company	91
Biefeld & Company, Otto	186
Binney & Smith Company	160
Blair Company, J. C.	177
Blickman, Inc., S.	168
Bonded Floors Co., Inc.	Insert
Bowlus Mfg. Co., The	140
Bradley Wash Fountain Co.	180
Brown Company	190
Bruce Publishing Co., The	192
Buckeye Blower Company	147
Buffalo Forge Company	144
Cannon Printing Company	184
Celotex Company, The	107
Century Brass Works, Inc.	170
Chicago Gymnasium Equip. Co.	180
Christiansen, C.	32
Circle A Products Corp.	196
Clarin Manufacturing Co.	157
Clarke Sanding Machine Co.	149
Cleveland Range Company, The	181
Clow & Sons, James B.	114 & 115
Colt's Pat. Fire Arms Mfg. Co.	168
Columbia Mills, Inc.	7
Columbia School Supply Co.	20 & 21
Continental Chemical Corp.	141
Copper & Brass Research Ass'n.	112
Cram Company, The Geo. F.	173
Cyclone Fence Company	119
Dayton Safety Ladder Co., The	125
Derby & Company, Inc., P.	22
Detroit Atlas Portable Bleacher Co.	122
Detroit Steel Products Co.	73
DeVilbiss Mfg. Company, The	184
Dudley Lock Corporation, The	103
Dougherty & Sons, Inc., W. F.	181
Draper Shade Co., Luther O.	187
Dunham Company, C. A.	78
Du Pont De Nemours & Co., E. I.	164 & 173
Durabilt Steel Locker Co.	121
Duraflex Company, The	109
Durand Steel Locker Co.	76
Eagle Pencil Company	183
Esterbrook Pen Company	183
Evans, W. L.	187
Everwear Mfg. Company	164
Finnell System, Inc.	168
Gaylord Brothers	174
General Motors Corporation	102
Gillis & Geoghegan, The	167
Gleason-Tiebout Glass Co.	85
Globe Ventilator Co.	142
Goes Lithographing Company	175
Graham Brothers	80
Graybar Electric Co., Inc.	101
Gregg Publishing Company	176
Gunn Furniture Company	30
Hamlin, Irving	171
Hammett Company, J. L.	158
Harris Brothers Co.	165
Hartshorn Company, Stewart	148
Heggie Simplex Boiler Co.	9
Heywood-Wakefield Co.	155
Hill Standard Company	171
Hillyard Chemical Company	136
Hockaday, Inc.	138
Hoffmann & Billings Mfg. Co.	172
Holden Patent Book Cover Co.	81
Holmes Projector Company	179
Holophane Company, Inc.	195
Huntington Laboratories, Inc., The	132
Imperial Desk Company	28
Indiana Limestone Company	75
International Projector Corp.	178
Invincible Vacuum Cleaner Mfg. Co.	106
Iroquois Publishing Co.	179
Johnson Service Company	4
Kansas City Scenic Company	187
Kerner Incinerator Co.	18
Kewanee Boiler Corp.	3
Kewaunee Mfg. Company	151
K-M Supply Company	98 & 166
Knott Apparatus Co., L. E.	156
Kundtz Company, The Theodor.	23
Laidlaw Brothers	174
Landis Eng. & Mfg. Co.	116
Lee Lash Studios	176
Leitz, Inc., E.	178
Litterer Bros. Mfg. Co.	140
Little, Brown & Company	186
Logan Company	170
Lupton's Sons Co., David	74
Lyon Metallic Mfg. Co.	87
Maple City Stamping Company	28
Maple Flooring Manufacturers Ass'n.	105
Marble Chair Company, The B. L.	153
Matthews Gas Machine Co.	188
Medart Mfg. Company, Fred	97
Midland Chemical Laboratories, Inc.	11
Miller Company, The	89
Miller Keyless Lock Co., The J. B.	188
Mills Company, The	137
Milwaukee Dustless Brush Co.	185
Mitchell Manufacturing Co.	180
Murdock Mfg. & Supply Co., The	180
Mutschler Bros. Company	30
Narragansett Machine Co.	171
Nash Engineering Co.	36
National Association of Marble Dealers	92
National Crayon Company	34
Nat'l Library Bindery Co., The	179
National Paper Products Co.	139
National School Equipment Co.	25
National Utilities Corp.	172
National Vulcanized Fibre Co.	34
Natural Slate Blackboard Co.	1
Nelson Corp., The Herman	Insert
Nelson Mfg. Co., N. O.	128 & 188
N. Y. Silicate Book Slate Co.	188
Norton Company	104
Norton Door Closer Co.	110
Novelty Scenic Studios	178
Oakite Products, Inc.	90
Pacific Steel Boiler Corp. of Ill.	5
Page Fence & Wire Prod. Ass'n.	123
Palmer Products, Inc.	181
Peabody School Furniture Co.	24
Peerless Unit Vent. Co., Inc.	79
Pa. Structural Slate Co.	148
Peterson & Co., Leonard	152
Pick-Barth Cos., The Albert	19
Pittsburgh Plate Glass Co.	12 & 13
Potter Manufacturing Corp.	185
Premier Engraving Co.	184
Rand, McNally & Company	174
Readsboro Chair Company	22
Remington Rand Business Service, Inc.	159
Richards-Wilcox Mfg. Co.	124
Rinehimer Bros. Mfg. Co.	26
Rowles Co., E. W. A.	34
Royal Metal Mfg. Company	31
Rubberstone Corporation	15
Rundle-Spence Mfg. Co.	146
Russell & Sons Co., Albert	187
Safety Stair Tread Co., The	111
Sani Products Company	108
Sanymetal Products Company	130
Sargent & Company	14
Shade Service Bureau	182
Sheldon & Company, E. H.	156
Soc. for Visual Education, Inc.	186
Solar-Sturges Mfg. Co.	133
Sonneborn Sons, L.	131
Spencer Turbine Company	8
Squires Inkwell Company	26
Stakmore Company	33
Standard Blackboard Co.	188
Standard Conveyor Company	188
Standard Electric Time Co., The	38
Standard Gas Equipment Corp.	71
Standard Mfg. Co., The	26
Standard School Equip. Co.	32
Steele Mfg. Co., Oliver C.	189
Steel Furniture Co.	29
Steffens-Amberg Company	10
Stewart Iron Works Co., The	96
Sturtevant Company, B. F.	143
Tannewitz Work, The	188
Taylor Company, Halsey W.	126
Tiffin Scenic Studios	186
Toledo Metal Furniture Co.	169
Trans Lux Daylight Picture Screen Corp.	176
Truscon Steel Company	77
Twin City Scenic Company	187
Underwood Typewriter Co.	163
U. S. Gutta Percha Paint Co.	135
U. S. Inkwell Company	22
U. S. Quarry Tile Co.	117
U. S. Sanitary Specialties Corp.	182
Universal Scenic Studio, Inc.	178
Universal Window Company	84
Van Range Company, John	19
Vitaglass Corporation	99
Vogel Co., Joseph A.	2nd Cover
Vonnegut Hardware Company	6
Vortex Mfg. Company	129
Wallace & Company, J. D.	32
Wallace & Tiernan, Inc.	14
Walraven Book Cover Co., A. T.	162
Ward-Stilson Company, The	182
Wayne Iron Works	100
Weber Costello Company	27
Weis Mfg. Co., Henry	113
Williams Pivot Sash Co., The	93
Wilson Corp., Jas. G.	86
Winston Co., The John C.	176

After The Meeting

A Guard Necessary?

Dr. Geo. N. Childs, superintendent of schools at Salt Lake City, Utah, lived on the thirteenth floor of the Statler Hotel during the recent convention of the Department of Superintendence. After Tuesday morning when Mrs. Lindbergh of Detroit arrived at the Statler, two police officers were stationed at the elevator exit of this floor and only persons who had rooms on that floor were permitted there.

Dr. Childs, after passing the officers several times, twitted Mr. Carl N. Hopkins, superintendent of schools at Odgen, Utah, by saying, "Did you notice, Carl, how important I have become? They have two officers on my floor at the hotel to look after me."

"Yes," responded Hopkins. "I guess they found out in Boston that you are a Mormon."

Keeping Away a Nuisance

Every large city has one or more unfortunate teachers who have been dismissed for incompetence but who persist in calling at the superintendent's office in the hope that they may be reinstated.

In a certain northern city such a middle-aged woman won the sympathy of the superintendent's stenographer, herself a woman no longer young. At least once a month the former teacher called to inquire for a teaching position and was invariably admitted by the stenographer. One day the superintendent, whose patience had become worn out, asked rather off-handedly whether his stenographer realized the reasons for the teacher's calls. Upon receiving a negative reply, he said: "She realizes that she cannot get a teaching position, and now she has her heart set upon becoming my stenographer."

To this day the former teacher cannot understand why she cannot see the superintendent any longer, or why his secretary is so cold.

Required Help

A college professor famous for absent-mindedness, once met an old friend in the street and stopped to talk with him. When about to separate, the professor's face suddenly assumed a puzzled expression.

"George," he said, "when we met was I going up or down the street?"

"Down," replied George.

The professor's face cleared. "It's all right, then. I had been home to lunch."

Every Time

Teacher of Christian Doctrine: "What is a niche in a church?"

Boy: "An itch in the church is the same as any other itch, but one can't scratch it so easy."—*Fortnightly Review.*

Teacher: John, give us a sentence using the pronoun I.

Johnnie: I is—

Teacher: Not "I is," you should say, "I am."

Johnnie: All right, I am the ninth letter of the alphabet.—*Fortnightly Review.*



MORE GENERAL KNOWLEDGE.

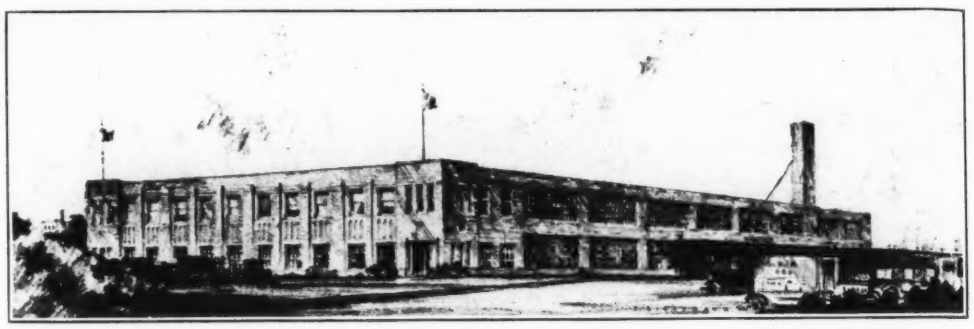
"What do we call a man who refuses to eat meat?"
"Fussy." —Punch.

BUYERS NEWS

PALMER COMPANY WILL OCCUPY NEW FACTORY BUILDING

The Palmer Products Co., Inc., formerly located at 56 Third St., Milwaukee, Wis., will shortly occupy its new, modern, daylight factory building in Waukesha. The erection of the new enlarged plant for the firm is the result of a definite plan which developed in connection with the sale of the former site and the working out of plans for a modern, fireproof structure with adequate manufacturing and shipping facilities.

The new building which is located in Waukesha, about eighteen miles from Milwaukee, is on Arcadian Ave., on Highway 18 leading to the city, and has adequate shipping facilities on two railroads. The building is of the modern daylight type, constructed of steel, concrete and brick, and is located on a five-acre site, providing sufficient space for large lawns and driveway service.



ARCHITECT'S PERSPECTIVE OF THE NEW PALMER FACTORY AND WAREHOUSE AT WAUKESHA, WIS.

The Palmer Company has witnessed a splendid growth in its business since its establishment in 1912 under the name of The Associated Manufacturers Company. As the business grew and expanded, the firm moved to larger quarters, each time to a larger and better location. The latest change is the fourth which the firm has made. The present building is well located and conveniently arranged for the health of the occupants, as well as for facilitating the manufacturing and shipping of the Palmer products, every article of which is now manufactured in the various departments represented by this large structure.

The firm also maintains a New York office for handling the eastern business. A branch office will be opened on the Pacific Coast and other offices in the principal cities of the country as soon as the present building is in operation.

DAYLIGHTING SCHOOLS WITH WILSON BLINDS

Under the title of "Daylighting School," The J. G. Wilson Company of New York City has issued a circular prepared by Mr. Woodruff Sutton, describing its new Diffuselite blinds for use on schoolroom windows. The Diffuselite blinds are of two standard types, both of which are of the highest quality of finish and material.

Type No. 11 is equipped with a steel traverse roller at the head, which travels back and forth to compensate for the lift of the suspended slats. Suspension cords attached to the roller, carry the weight of the blinds, while the operating cards are first-quality solid braided cords.

Type No. 12 is equipped with patented grooves and sliders, which are designed for appearances as well as utility. The slider mechanism, in conjunction with the roller head, insures the blind being always in alignment and permits of its being raised parallel to the window sills.

Diffuselite blinds are hung on Wilson patented brackets of solid bronze and are finished in either white or Diffuselite green.

Complete information and prices may be obtained by writing to the J. G. Wilson Corporation, 11 East 38th St., New York City.

THE MICHIGAN SCHOOL SERVICE, INC.

The Eau Claire Book & Stationery Company of Eau Claire, Wisconsin, has just announced the purchase of the Michigan Education Company of Lansing, Michigan. The name of the firm is to be changed to Michigan School Service, Inc.

Warehouse service will be given from Lansing to all points in Michigan. In Wisconsin, the Eau Claire Book & Sationery Company represents a variety of leading manufacturers, and, in this new enterprise, will extend the same products and services into Michigan.

NEW CRYSTAL FINISH FOR SCHOOL FURNITURE

A new finish for the protection of metal work on school desks and chairs has recently been perfected by The Theodor Kundtz Company, Cleveland, Ohio, manufacturers of Kundtz-Eclipse school furniture.

The new finish, which is called the Crystal finish, gives a durable protection to the metal supports that demand protection against the scuffing of little children's feet. The Crystal finish is applied at a higher temperature than the usual enamel finish, and forms a close union with the metal. The finish has a hard surface, is smooth, and has the appearance of a closely knit texture. On account of its hardness, the Crystal finish is resistant to mars and scratches, and does not retain dust, pencil marks, or stain.

The Crystal finish is now the standard finish for all models of school furniture produced by the Kundtz Company.

NEW MODEL COMBINED BALOPTICON

The Bausch & Lomb Optical Company of Rochester, N. Y., has announced the marketing of its new L-R-M combined balopticon for opaque and lantern-slide projection purposes. The new balopticon projects larger pictures under lighter room conditions than was formerly possible, with the added possibility of note-taking and maintenance of discipline, as well as the advantage of fine detail without eyestrain.

An important feature of the lantern is the amount of light projected upon the screen. With a 115-volt, 500-watt lamp, operated from any light socket, it produces especially satisfactory results. This is accomplished with the use of a specially designed glass parabolic reflector, which directs the light over the entire surface of the opaque object. The reflector is supplemented by chronium-plated metal reflectors placed along the sides and in front of the object.

A SHARPENER FOR SCHOOL PENCILS

The Automatic Pencil Sharpener Company, 58 East Washington Street, Chicago, Ill., has just put on the market a new model of its automatic sharpener known as the *Round Point* and adapted especially for sharpening pencils with thick leads. This machine was developed as the result of a direct demand from teachers who are using special school pencils adapted to the needs and abilities of children in the kindergarten and primary grades and students of drawing who need pencils with heavy leads.



THE NEW "ROUND POINT" AUTOMATIC PENCIL SHARPENER AND A "POINT" MADE WITH IT.

The new machine will cut easily the wood of a thick pencil without removing more of the graphite than is necessary to round the end. Style No. 1 is intended for pencils of ordinary diameter but fitted with large leads. Point No. 2 is intended for extra large pencils like Dixon's Beginners' 308, Eagle's 773, and Faber's Elementary 6370. The Automatic Pencil Sharpener Company has prepared circulars describing the new machine.



No wonder *children fear the dark*

Insufficient light makes things hard for them. Under poor lighting the average child requires 8 years to learn what it could acquire in 6 years under satisfactory illumination.

Under poor lighting as much as 50% of one's nervous energy is consumed—just for seeing!

Good light — light that is constant, properly distributed and of good quality—is indispensable to schools. Daylight is unreliable, as it fails too often due to atmospheric or industrial conditions. Even on the brightest day supplementary artificial lighting must always be available to reinforce the natural light.

The artificial lighting system should always be designed to fit specifically the needs of the individual department of the school which is to be lighted.

Holophane engineers of long experience are available, without charge or obligation, for consultation with school boards and school architects. If you will submit the plans of your building, Holophane engineers will study these and design a system of artificial lighting for each department of the school, incorporating in their recommendation suggestions for the proper lighting unit for each area or department. This service is called Holophane Planned Lighting, and the units recommended for each specific purpose are called Holophane Lighting Specifics.

Write today for our booklet called "The Lighting of Schools — A Guide to Good Practice." This booklet contains valuable information and suggestions to help you solve your school lighting problems.

HOLOPHANE CO., INC.
342 Madison Avenue, New York

HOLOPHANE

New York San Francisco Chicago Milwaukee Toronto

NINE WINDOWS

To Every Circle A Class Room



And They Are Awning Type

Practically the entire left wall of a Circle A class room is glass. Light floods through the room, over the left shoulders of the pupils, and throws the blackboards into prominence.

They are the new, ceiling height, awning type windows. They can be opened rain or shine. They don't cause drafts.

Circle A class rooms are built to take care of any weather. Their four layer, insulated walls keep out heat, cold, noise.

Their corner posts are reinforced "six-by-sixes." At every three feet in the wall is a reinforced "four-by-four." These buildings stand up under the most strenuous usage.

And remember: in eight days from the time a Circle A School arrives, classes can be in session.

Cost is low—very low. These schools cost considerably less than ordinary class room space.

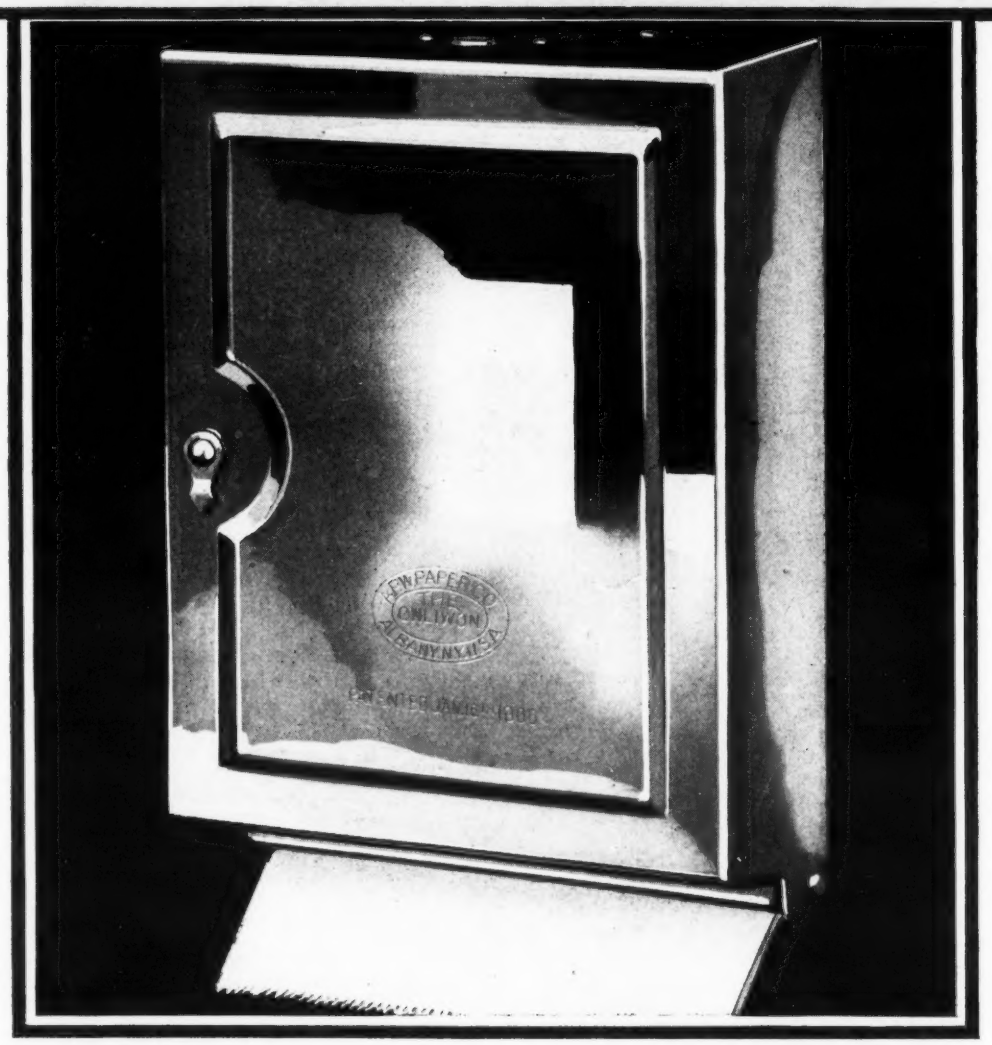
Send for "Schools." It's interesting and valuable.

CIRCLE A PRODUCTS CORPORATION

600 S. 25th STREET NEWCASTLE, IND.

CIRCLE (A) SCHOOLS

A. P. W. PAPER COMPANY, ALBANY, N.Y. U.S.A.



Onliwon toilet paper cabinet of pressed steel finished in rust-proof nickel silver. Yale lock and contents indicator.

Double folded sheets save waste

ONLIWON toilet tissue is served in two interfolded sheets at once. It is convenient, economical and eliminates waste.

Experience in hundreds of installations proves its saving.

Onliwon cabinets are neat-looking . . . fool-proof . . . and will last for an exceptionally long period of time.

Splendid service at low cost is the keynote of the Onliwon Service.

A. P. W. Paper Company, Albany, New York, U. S. A.

Onliwon

TOILET PAPER AND PAPER TOWEL SERVICE

AUSTRAL WINDOWS in the $3,500,000 School Program —

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

Form 1201 S

SIGNS

DL = Day Letter
NM = Night Message
NL = Night Letter
LCO = Deferred Cable
CLT = Cable Letter
WLT = Week-End Letter

NEWCOMB CARLTON, PRESIDENT — J. C. WILLEVER, FIRST VICE-PRESIDENT

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.

Received at

NA113 43 DL 3 EXTRA=BA ATLANTA GA 13 917A

AUSTRAL WINDOW COMPANY=
101 PARK AVE=

THE ARCHITECTS AND THE SCHOOL AUTHORITIES OF ATLANTA PUBLIC SCHOOL SYSTEM AFTER THOROUGHLY INVESTIGATING MANY DIFFERENT TYPES OF WINDOWS HAVE ADOPTED THE AUSTRAL WINDOW AS A STANDARD WINDOW EQUIPMENT FOR THE THREE AND ONE HALF MILLION DOLLAR ATLANTA SCHOOL PROGRAM=

L J BOMBARDIER SOUTHEASTERN DISTRICT MANAGER.

The specification of Austral as a Standard in large School programs is proof of their absolute merit and economy.

Austral Window Co.
101 Park Ave. New York

STANDARD SCHOOL EQUIPMENT